ORDER NO. TSD-7806-625

Service Manual

FM/AM/FM STEREO RADIO WITH CASSETTE TAPE DECK, 8-TRACK TAPE DECK AND RECORD CHANGER

Compact Stereo

SE-3007/(E)

Specifications

AMPLIFIER SECTION

Frequency Response	50 Hz ~ 30 kHz
Tone Controls	Bass: ±10 dB at 100 Hz Treble: ±10 dB at 10 kHz
Loudness Control	+7 dB at 100 Hz +4 dB at 10 kHz
Rec Out	150 mV

FM TUNER SECTION

Frequency Range	88 MHz ~ 108 MHz
Intermediate Frequency	10.7 MHz
Usable Sensitivity	4 μV (S/N 30 dB, Mod. 30%)
Image Ratio	49 dB (98 MHz)
Harmonic Distortion	Mono: 0.3% (at 1 kHz 60 dB Mod. 30%) Stereo: 0.5% (at 1 kHz 60 dB Mod. 30%)
Signal to Noise Ratio	65 dB (at 1 kHz 60 dB 100%)
Stereo Separation	35 dB (at 1 kHz 60 dB 30%)
Antenna	300 ohms, Balanced Built-in Line Antenna

AM TUNER SECTION

Frequency Range	525 kHz ~ 1605 kHz
Intermediate Frequency	455 kHz
Usable Sensitivity	100 μV/m for 50 mW
Image Ratio	35 dB (1 MHz)
Antenna	Built-in Ferrite Bar Antenna

RECORD PLAYER SECTION

Type	Automatic Record Changer
Turntable	28 cm (11″)
Turntable Speeds	33-1/3, 45 and 78 rpm, 3 speeds
Phono Motor	4-pole Induction Motor
Cartridge	Moving-Magnet type, EPC82SMBD
Stylus	Diamond, EPS31STSD
Stylus Pressure	4 ~ 5g

CASSETTE TAPE DECK SECTION

Deck System	Auto-Stop Cassette
Track System	4-Track, 2-Channel
Recording System	AC Bias (47 kHz)
Erasing System	AC Erase (47 kHz)
Tape Speed	1-7/8 i.p.s. (4.8 cm/sec)
Frequency Response	70 Hz ~ 12 kHz (Normal) 70 Hz ~ 15 kHz (CrO_2)
Operation System	Automatic Level Control Recording
Wow and Flutter	0.2% WRMS

8-TRACK TAPE DECK SECTION

Track System	8-Track, 2-Channel
Recording System	AC Bias (47 kHz)
Erasing System	AC Erase (47 kHz)
Tape Speed	3-3/4 i.p.s., 9.5 cm/sec
Frequency Response	70 Hz ~ 12 kHz
Operation System	Automatic Level Control Recording
Wow and Flutter	0.2% WRMS

SPEAKER SYSTEM

Type	1-Way Full-Range with Passive Radiator
Speaker	16 cm (6-1/2″) Full-Range
Passive Radiator	16 cm (6-1/2″)
Impedance	8 ohms

POWER CONSUMPTION 90W

POWER SUPPLY ..... AC 110V, 120V, 220V, 240V, 50/60 Hz

DIMENSIONS (W × H × D)

Center Unit	565 mm × 160 mm × 337 mm (22-1/4″) × (6-5/16″) × (13-9/32″)
Speaker System	343 mm × 556 mm × 203 mm (13-1/2″) × (21-7/8″) × (7-15/16″)

WEIGHT

Center Unit	14.6 kg (32 lb. 2 oz.)
Speaker System	6.1 kg (13 lb. 7 oz.) × 2

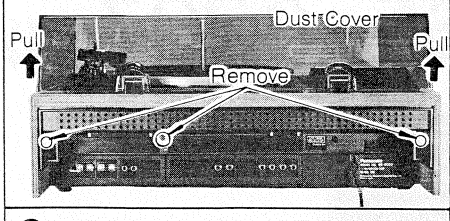
* Specifications are subject to change without notice for further improvement.

Panasonic®

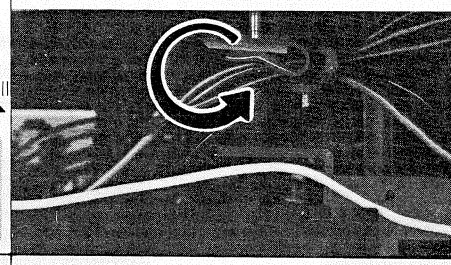
Matsushita Electric Industrial Co., Ltd.
1-2, 1-chome, Shiba-Koen, Minato-ku, Tokyo 105, Japan

DISASSEMBLY INSTRUCTIONS

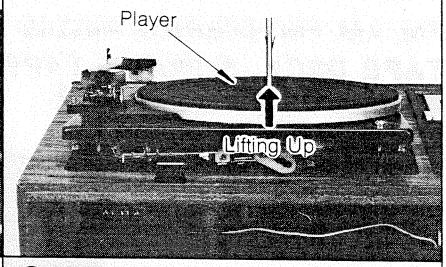
❶ Remove Dust Cover and Screws for Rear Cover



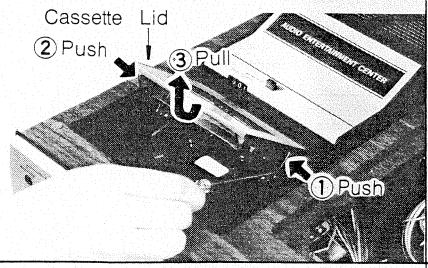
❷ Turn Retaining Clip



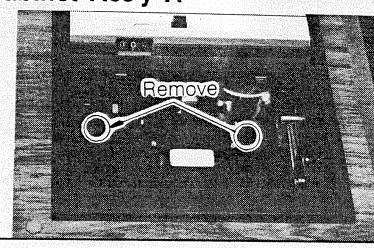
❸ Remove Player



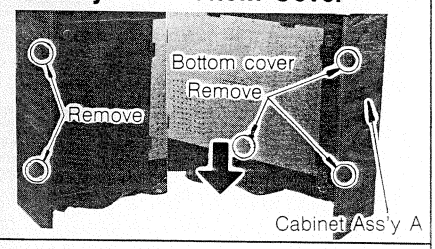
❹ Remove Cassette Lid



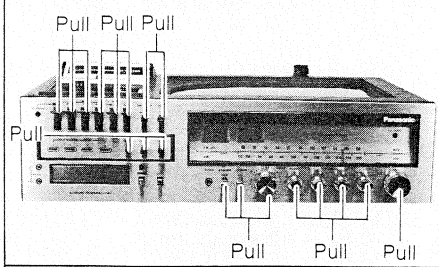
❺ Remove Screws for Cabinet Ass'y A



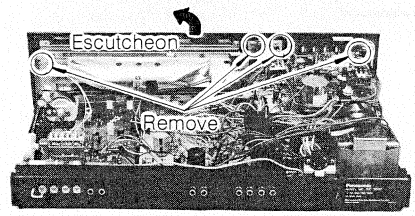
❻ Remove Screws for Cabinet Ass'y and Bottom Cover



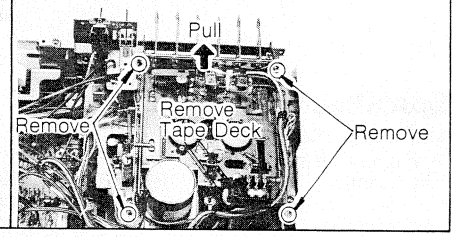
❼ Remove Knobs



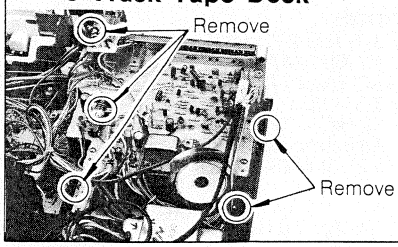
❽ Remove Screws for Escutcheon



❾ Remove Screws for Cassette Tape Deck



❿ Remove Screws for 8-Track Tape Deck

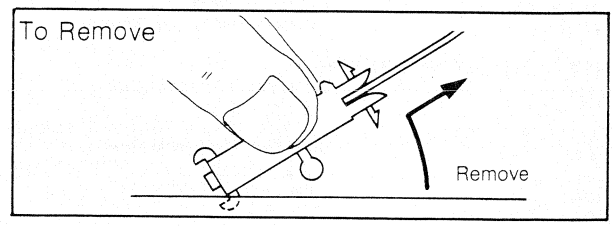


- **To Remove Cabinet Ass'y A** ..... Refer to ❶ ~ ❻.
- **To Remove Escutcheon** ..... Refer to ❶ ~ ❽.
- **To Remove Cassette Tape Deck** ..... Refer to ❶ ~ ❾.
- **To Remove 8-Track Tape Deck** ..... Refer to ❶ ~ ❿.

SERVICING AID

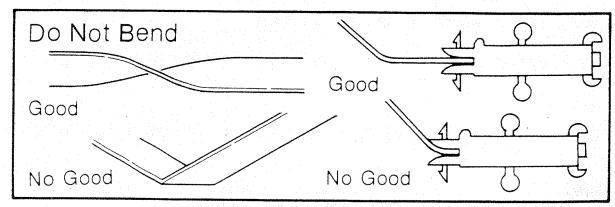
■ **To Remove Remote Wire Assembly**

Lift remote wire assembly upward by pushing the lower portion of plastic hook with a suitable screwdriver.

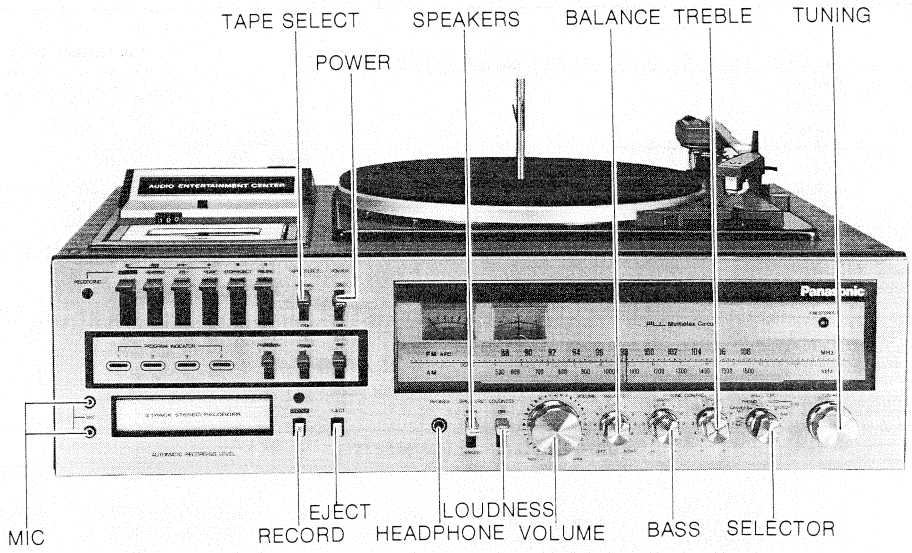


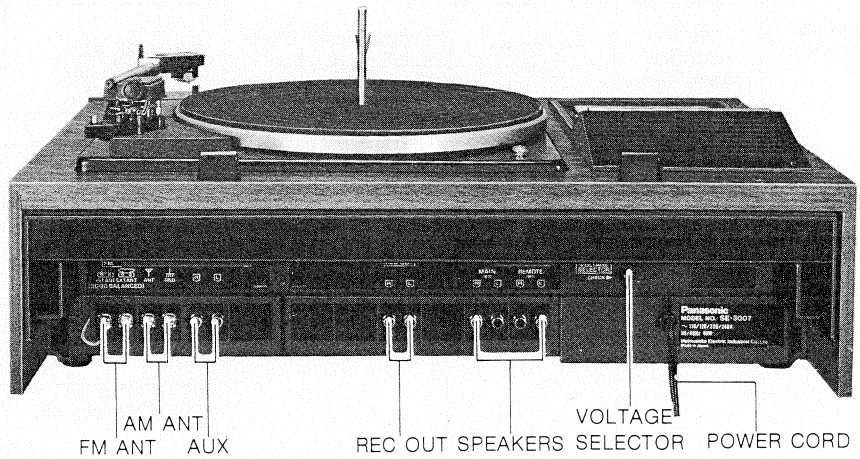
■ **Note for Handling of Remote Wire Assembly**

When servicing remote wire assembly, be sure to hold it gently. Do not bend sharply.
Before lifting the cassette deck (or circuit board), be sure to remove remote wire assembly carefully to prevent it from being damaged.

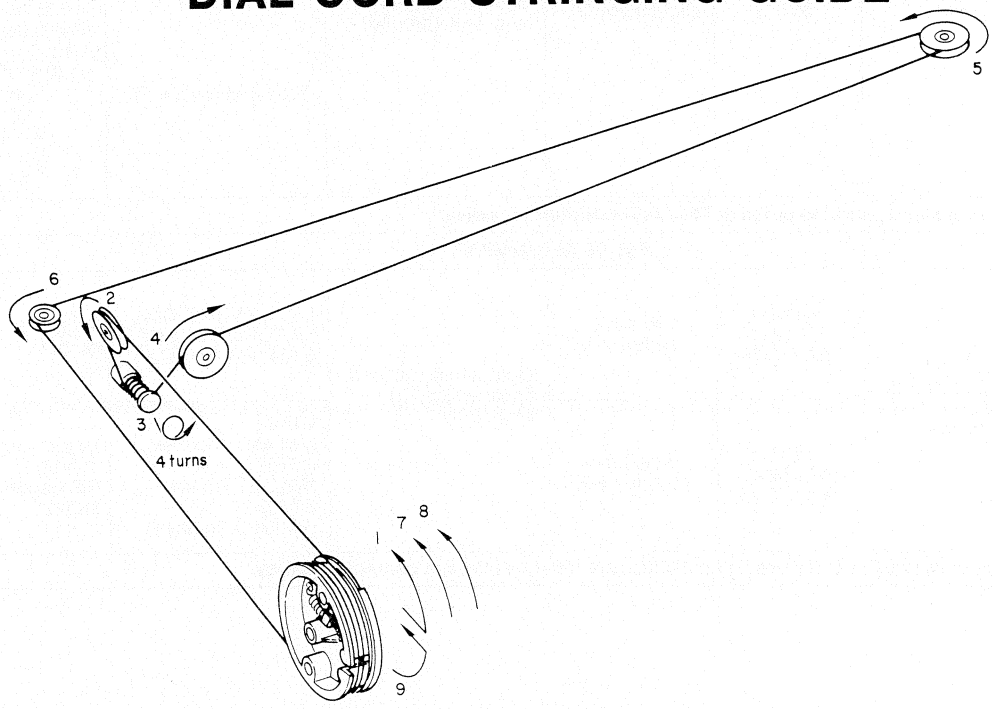


LOCATION OF CONTROLS





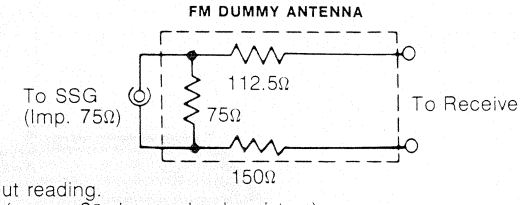
DIAL CORD STRINGING GUIDE

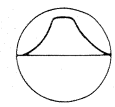
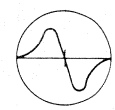


ALIGNMENT INSTRUCTIONS (RADIO)–1

Notes:

1. Volume Control ..... Maximum (AM-IF and RF, FM-RF); Minimum (FM-IF)
2. Treble Control ..... Center
3. Bass Control..... Center
4. Balance Control..... Center
5. Function Selector ..... AM, FM MONO, FM AUTO
6. Power Switch ..... ON
7. Tape Monitor..... MAIN
8. Loudness..... OFF
9. Output of signal generator should be no higher than necessary to obtain output reading.
10. Make certain that speaker system is connected to the receiver when aligning. (or use 8Ω dummy load resistors).



STEP	SIGNAL GENERATOR OR SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (VTVM or SCOPE)	ADJUST	REMARKS
	CONNECTION	FREQUENCY				
AM-IF AND RF ALIGNMENT						
1	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455 kHz 30% Mod. with 400 Hz	Point of non-interference (on/ about 600 kHz)	Output meter across speaker jack (L) (Imp. 8Ω)	T201 (AM CFT) T202 (AM IFT)	Adjust for maximum output.
2		550 kHz 30% Mod. with 400 Hz	550 kHz (5.81 mm)		L201 (ANT Coil) L202 (OSC Coil)	Adjust for maximum output by sliding coil (L201) along ferrite core.
3		1500 kHz 30% Mod. with 400 Hz	1500 kHz (154.76 mm)		CT201 (ANT Trimmer) CT202 (OSC Trimmer)	Adjust for maximum output. Repeat steps (2) and (3).
Note: Cement antenna coil with wax after completing alignment.						
FM-IF AND DETECTOR ALIGNMENT						
1	High side through 0.001μF between point TP1 and E (ground).	10.7 MHz (400 kHz SWP.)	Point of non-interference (on/ about 98 MHz)	Connect vert. amp. input of scope between point TP3 and TP4 (ground)	T101 (FM 1st IFT) T203 (FM Disc. IFT)	Adjust T101 for maximum amplitude and symmetrical curve. 
2					T204 (FM Disc. IFT)	Adjust for maximum amplitude and proper linearity between about ±100 kHz markers. 
Note: Before aligning step 1, turn the cores of T204 fully counterclockwise.						
FM-RF ALIGNMENT						
1	Connect to EXT. FM antenna terminal through Dummy antenna. Common to chassis.	90 MHz 30% Mod. with 400 Hz	90 MHz (22.50 mm)	Output meter across speaker jack (L) (Imp. 8Ω)	L101 (FM ANT Coil) L102 (FM DET Coil) L104 (FM OSC Coil)	Adjust for maximum output.
2		106 MHz 30% Mod. with 400 Hz	106 MHz (150.95 mm)		CT101 (FM ANT Trimmer) CT102 (FM DET Trimmer) CT103 (FM OSC Trimmer)	Adjust for maximum output. Repeat steps (1) and (2).
Note: As three output readings will be present, adjustments must be made at center frequency.						

ALIGNMENT INSTRUCTIONS (RADIO)–2

■ FM Stereo Alignment

Notes: Tuner:
Volume Control ..... Audible level of speaker sound
Treble Control ..... MIN
Bass Control..... Center
Band Selector ..... FM AUTO
Balance Control..... Center

EQUIPMENT CONNECTION	ADJUST	REMARKS
Connect frequency counter between TP2 and TP4 (ground) at no signal condition.	VR301	Adjust VR301 for 19 kHz ± 100 Hz on frequency counter reading.

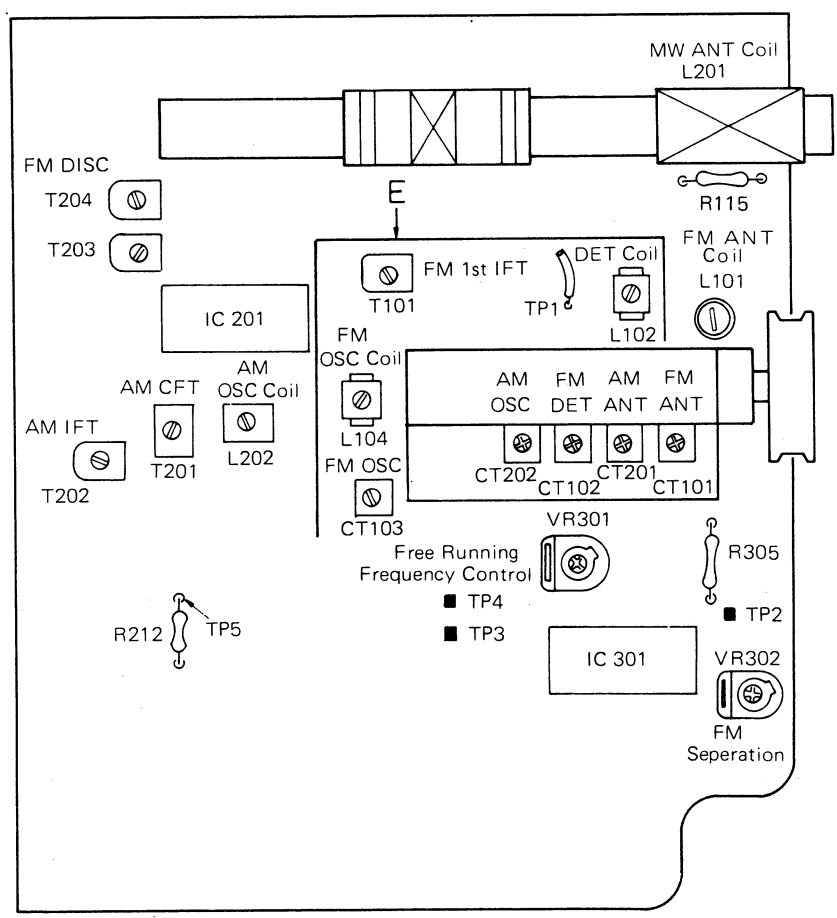
SEPARATION ALIGNMENT

Notes:
1. Stereo Modulator: Connect Stereo Modulator to EXT. Mod. terminal of signal generator or switch signal generator to "STEREO MODE" (L+R) (if applicable).
2. Signal Generator: Modulation Rate of 19 kHz Pilot Signal 10%
Modulation Rate of Right and Left Signal 27%
Output Level..... 60 dB
3. Tuner (Balance Control): Adjust balance control so that output level from both channels becomes equal.

EQUIPMENT CONNECTION			ADJUST	REMARKS
SIGNAL GENERATOR	VTVM	OSCILLOSCOPE		
Connect to EXT. FM Antenna terminal through dummy antenna.	Connect across speaker jack. (Imp. 8Ω)	Connect vertical amp. input of scope to terminals of VTVM.	VR302 (Separation Control)	Adjust VR302 for minimum indication of VTVM from the left side output when the right side of stereo modulator is modulated. Adjust VR302 in the same way for the right side. Adjust for best balance between "L to R" and "R to L" separation.

Note: When aligning separation, disconnect frequency counter.

ALIGNMENT POINTS (RADIO)



ALIGNMENT INSTRUCTIONS (CASSETTE TAPE DECK)

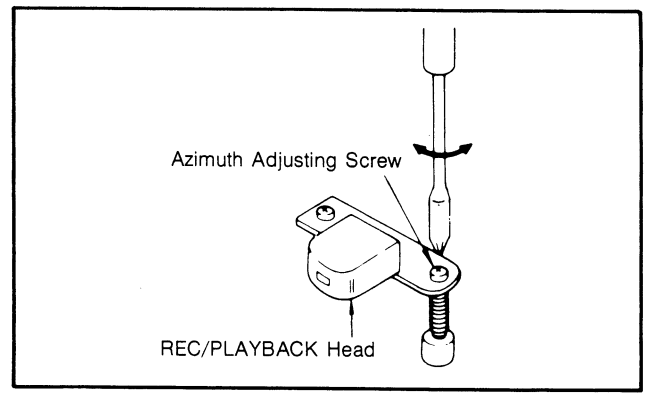
STEP	ITEM	VTVM CONNECTION		TAPE SELECTOR	ADJUSTMENT	REMARKS
		Positive	Negative			
1	AC Record Bias	TP401	TP403	Normal	VR803 VR802	Adjust VR803 center, VR802 to get within 0.3mV difference reading on both VTVM.
		TP402	TP403			
2	AC Erase Bias	TP801	TP802	CrO_2	VR801	Adjust VR801 to get 75~90mV reading on VTVM.
3	AC Record Bias	TP401	TP403	Normal	VR803	Adjust VR803 to get 3.5±0.2mV reading on VTVM. Repeat steps 1~3.
		TP402	TP403			

RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

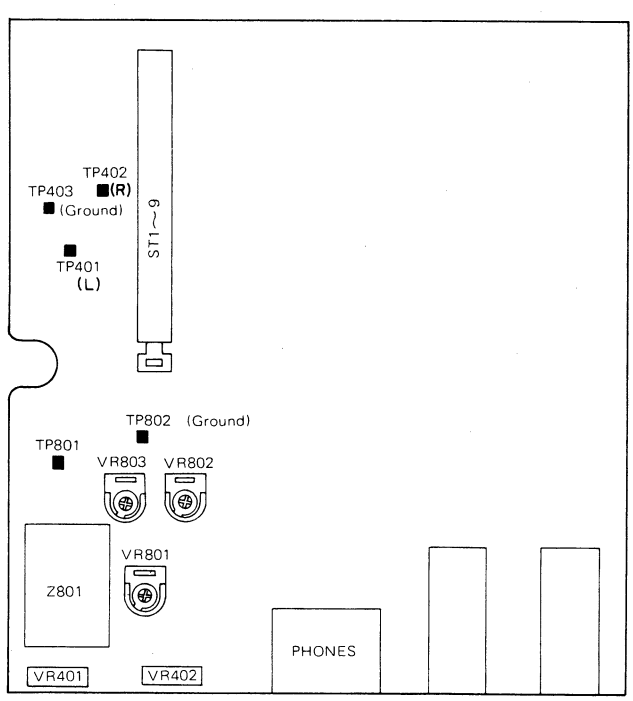
Playback a Standard Alignment Tape and turn Azimuth Adjusting Screw for maximum loudness.

*** Test Tape (6.3 kHz)**

VTT-652 or Equivalent



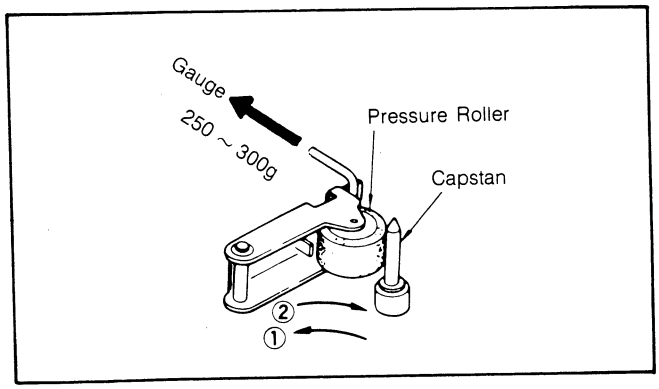
ALIGNMENT POINTS (CASSETTE TAPE DECK)



MECHANICAL ADJUSTMENT OF CASSETTE TAPE DECK

PRESSURE ROLLER ADJUSTMENT

1. Switch set to PLAY. (Do not insert cassette.)
2. Hook Spring gauge to arm of pressure roller.

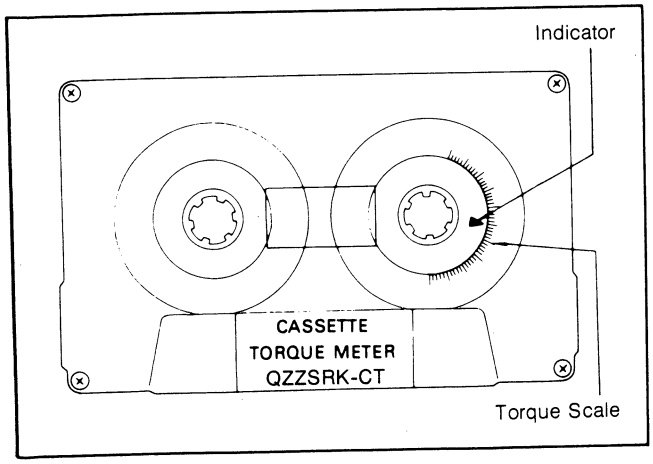


3. Pull pressure roller away from the capstan in the direction of arrow 1 with spring gauge and slowly permit the pressure roller to return toward capstan in the direction of arrow 2.
4. Measure tension at time when pressure roller makes contact with capstan (or when pressure roller starts rotating.)
5. The standard tension of pressure roller should be 250 ~ 380g.
6. If pressure is not within these limits;
   Clean the rubber roller and capstan with a soft cloth moistened with alcohol or replace pressure spring.

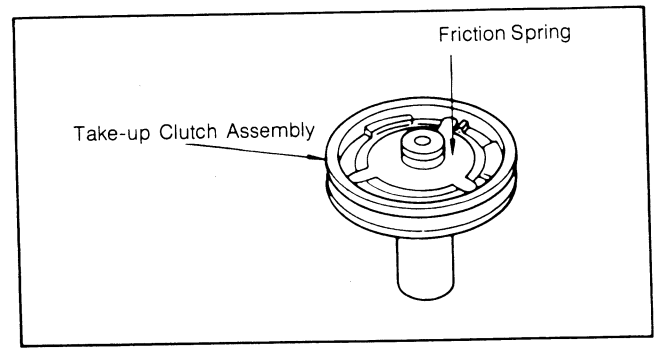
TAKE-UP TORQUE ADJUSTMENT

* Test Tape: SRK-CT (Take-up Torque Meter)

1. Insert test tape.
2. Rewind the tape to its starting point.
3. Switch set to PLAY.
4. Read "▶" mark of indicator on take-up side.

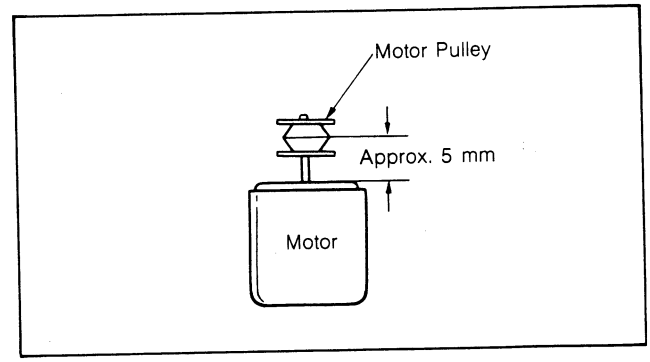


5. Repeat PLAY-STOP several times and read the average tension.
6. The standard take-up tension should be 30 ~ 70 g.cm. If take-up tension is not within these limits;
   a) Clean main belt, take-up reel and all parts which contact them with a cotton swab moistened with alcohol, and/or
   b) Switch set to "OFF", remove main belt and make sure that take-up reel and take-up clutch are rotating smoothly.
   c) Change take-up clutch tension by turning the friction spring under reel table, and/or
   d) Replace take-up clutch.



MOTOR PULLEY ADJUSTMENT

When replacing the motor, adjust the clearance between motor and motor pulley as in figure below.

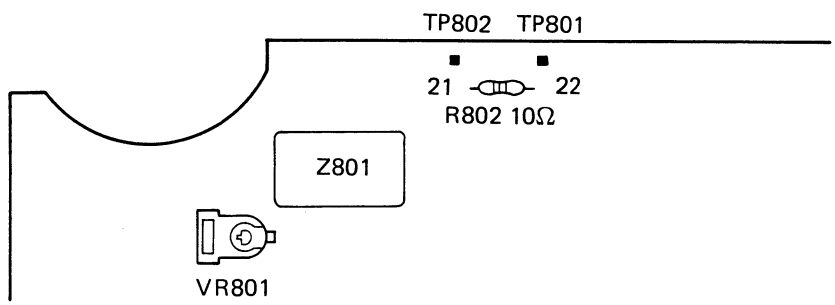


ALIGNMENT INSTRUCTIONS (8-TRACK TAPE DECK)

Notes: 1. Set recording position. (Moror switch ON)
2. Do not touch R/P Head when adjusting.

STEP	ITEM	VTVM CONNECTION		REC LEVEL	ADJUSTMENT	REMARKS
		Positive	Negative			
1	AC Erase Bias	TP801	TP802	Minimum	VR801	Adjust VR801 to get 80 ± 2mV reading on VTVM.

ALIGNMENT POINTS (8-TRACK TAPE DECK)



MECHANICAL ADJUSTMENT OF 8-TRACK TAPE DECK

* After removing or replacing head, the following adjustments must be made.

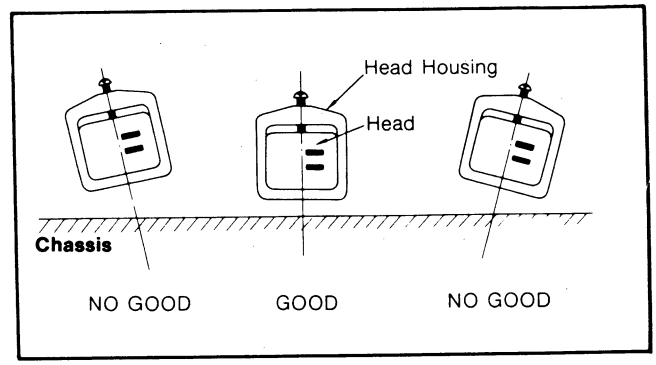
COARSE ADJUSTMENT

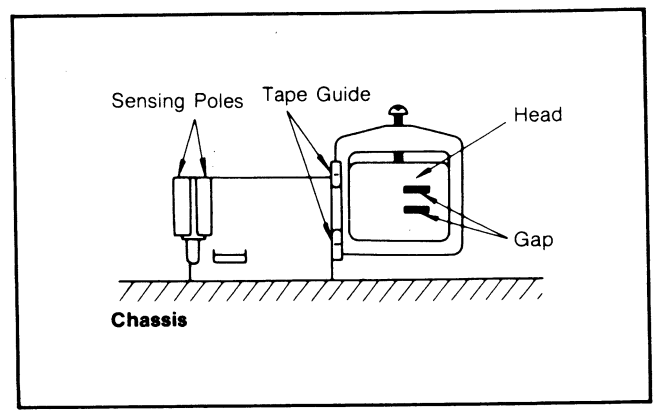
1. Adjust screw-1 with a square gauge until the head is positioned perpendicularly to chassis by visual check.
2. Make sure that head is positioned parallel to chassis by adjusting screw-2.
3. Set program button to 1st channel position. Adjust screw-3 until upper gap is parallel to the upper part of tape guide by visual check.

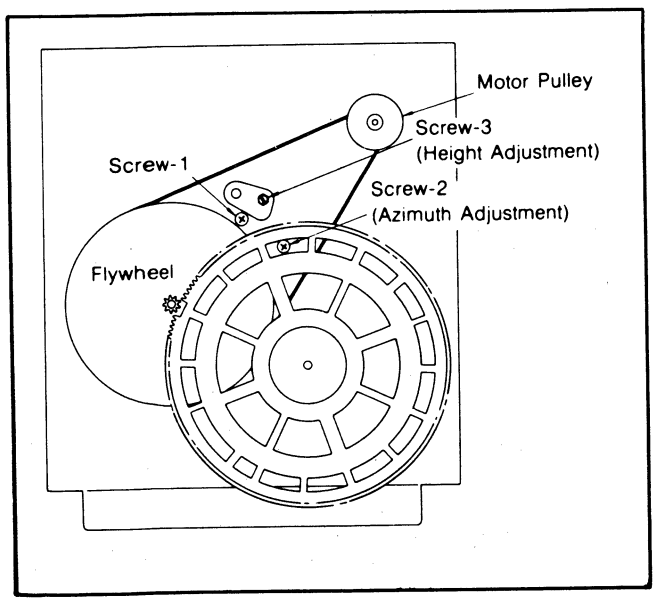
FINE ADJUSTMENT

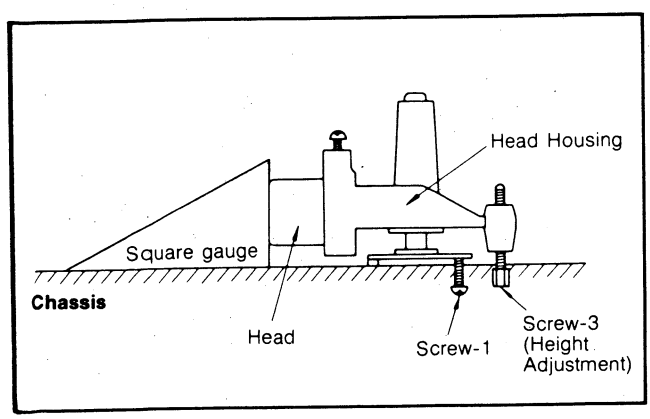
1. Azimuth Adjustment
   With the azimuth test tape, adjust for maximum output by using screw-2.
2. Height Adjustment
   With the height adjustment tape, adjust screw-3 for best cross-talk.

NOTE:
The adjustments should be made in the above order. Paint lock adjusting screws 1, 2 and 3 after alignment.



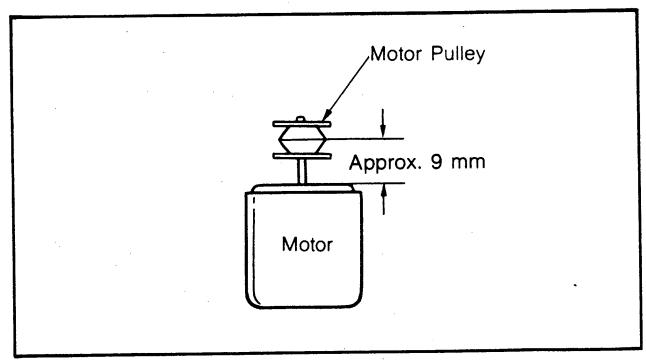






MOTOR PULLEY ADJUSTMENT

When replacing the motor, adjust the clearance between motor and motor pulley as in figure below.



SERVICING THE RECORD CHANGER–1

DISASSEMBLY INSTRUCTIONS

(Refer to "EXPLODED VIEW OF RECORD CHANGER".)

■ Turntable Assembly

1. Remove automatic spindle (1).
2. Remove stopper ring (4) from the top of turntable shaft.
3. Carefully lift turntable assembly (5) off the shaft.

NOTE:

Before replacing the turntable assembly (5), move start lever (14) to the "START" position and move idler off latch (33) clockwise until idler wheel (11) disengages from capstan (35) and turntable (5).
This action will allow turntable (5) to drop into position without damaging the idler wheel (11).

■ Base Plate Assembly

1. Disconnect the unit from the power supply.
2. Be sure that the mechanism is in the neutral position and that pickup arm (6) is on its arm rest (10) and clamped.
3. Remove pickup leads from base plate (50).
4. Remove five screws (58, 68) which attach the base plate (50) to the main plate (12), so that base plate ass'y (50) can be removed easily.

NOTE:

When replacing base plate assembly (50), special care should be taken regarding the following points:

a) Shut off lever must be placed on the switch side of the longest pin of trip lever (34).
b) Index plate must be placed on start lever (14) side of select lever arm (24).
c) Push lever (15) must be placed on the Lift Ass'y (7) side of the projecting part of actuating slide.

■ Pickup Arm Assembly

1. Disconnect the pickup leads from the terminals.
2. Remove base plate assembly (50).
3. Remove circlip (61), two springs (19 and 23), washer (22) and collar (21) which is around lift shaft (7).
4. Remove pickup control lever ass'y (20) by loosening two screws (59).
5. Remove Nut (67) which holds pickup arm ass'y (6) and lift pickup arm ass'y (6) upward.

■ Cueing Lift Ass'y

1. Remove pickup arm ass'y (6) (step 3)
2. Remove nut (18), washer (17) and push collar.

NOTE:

Be careful not to drip silicone grease from collar.

■ Idler Wheel

1. Remove turntable (5).
2. Remove circlip (60) and carefully lift off idler wheel (11).

CAUTION:

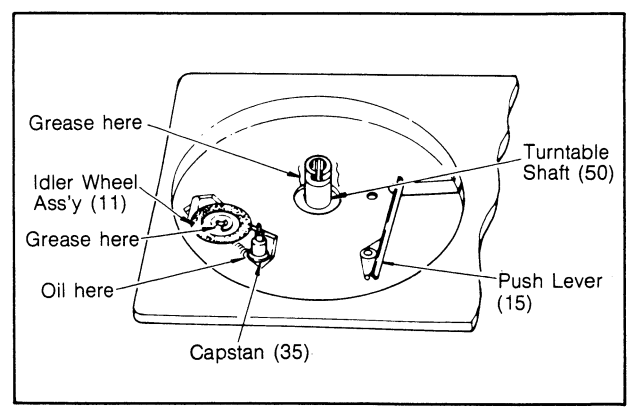
Do not touch the friction surface of the idler wheel nor allow friction surface to come into contact with any oil or grease.

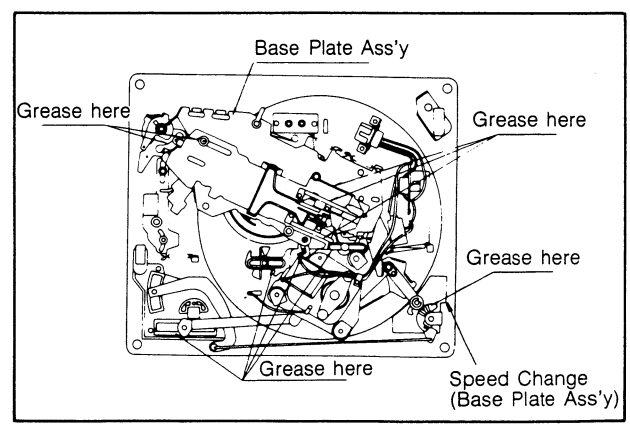
LUBRICATION

The record changer mechanism is well lubricated before leaving the factory, however, after prolonged use, it is advisable to re-lubricate certain parts.
A medium grade grease or oil should be applied to the points.

CAUTION:

Do not touch the outside edge of the idler wheel or let it come into contact with any oil or grease.





SERVICING THE RECORD CHANGER–2

ADJUSTMENT

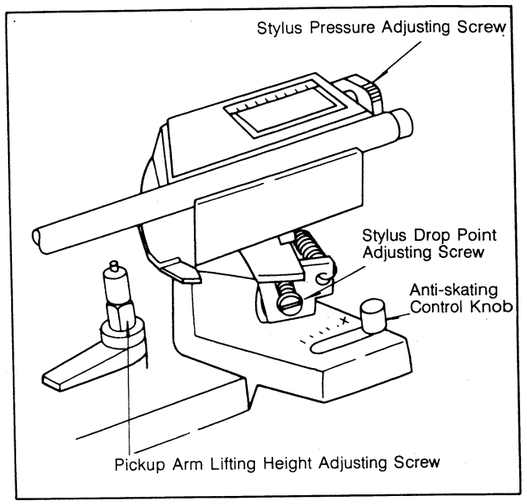
This unit has been subjected to the most rigorous inspections and tests before leaving the factory, where all necessary adjustments have been made to ensure the satisfactory playing of records.
The following information is provided, should it become necessary to make any minor adjustment.

■ **Stylus Pressure**
The stylus pressure should always be set as recommended by cartridge manufacture. (Use stylus pressure gauge). The pressure is adjusted by means of the stylus pressure adjusting screw.
Turning the screw clockwise as viewed from the front increases the pressure, counterclockwise reduces the pressure.

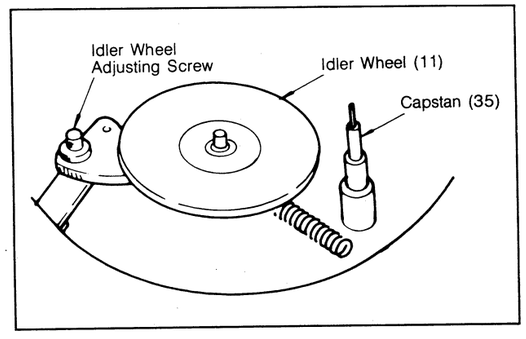
■ **Anti-skating Control**
Having set the stylus pressure (3.5 gr. is recommended) and anti-skating control knob to the "▶" position, the anti-skating force is adjusted to correspond to the stylus pressure applied.
Moving knob toward "+" increases the anti-skating force, toward "−" reduces the force.

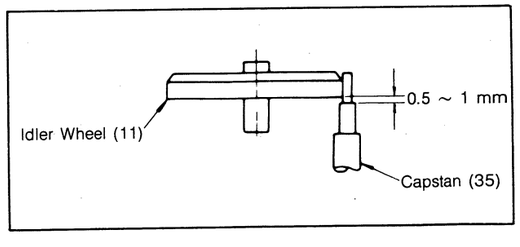
■ **Stylus Drop Point**
Turning the stylus drop point adjusting screw clockwise moves pickup inward, counterclockwise moves it outward.

■ **Pickup Arm Lifting Height**
If pickup arm (6) does not lift enough to clear the top record of a stack on the turntable when returning to its rest, turn the pickup lifting height adjusting screw counterclockwise to raise the pickup.
The stylus should lift 15.0 mm above the face of a single record on the turntable as pickup arm (6) returns to its rest (10). Turning the screw clockwise, pickup arm (6) is lowered.


Stylus Pressure Adjusting Screw
Stylus Drop Point Adjusting Screw
Anti-skating Control Knob
Pickup Arm Lifting Height Adjusting Screw

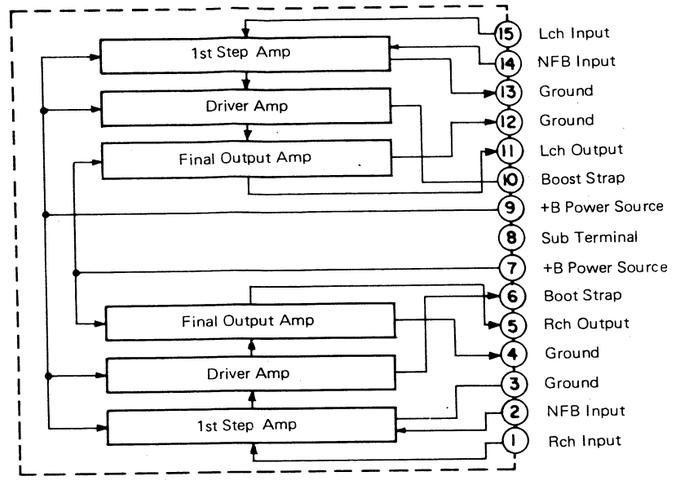
■ **Idler Wheel Height**
To raise, turn screw counterclockwise, to lower, turn screw clockwise.
Adjust idler wheel (11) height as shown below.



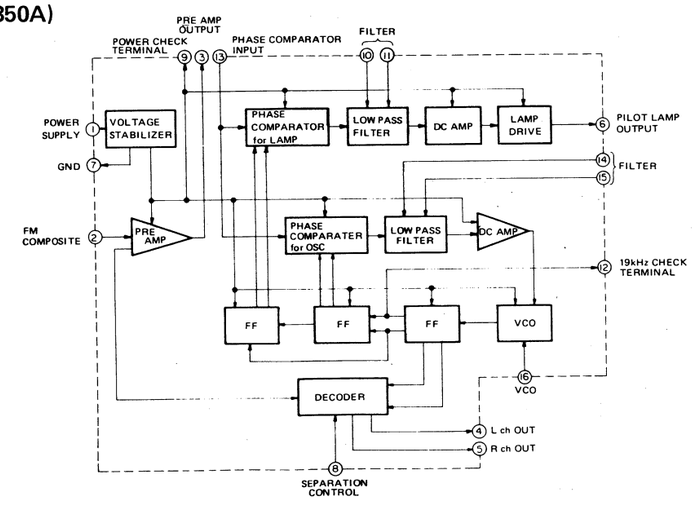


IC BLOCK DIAGRAM

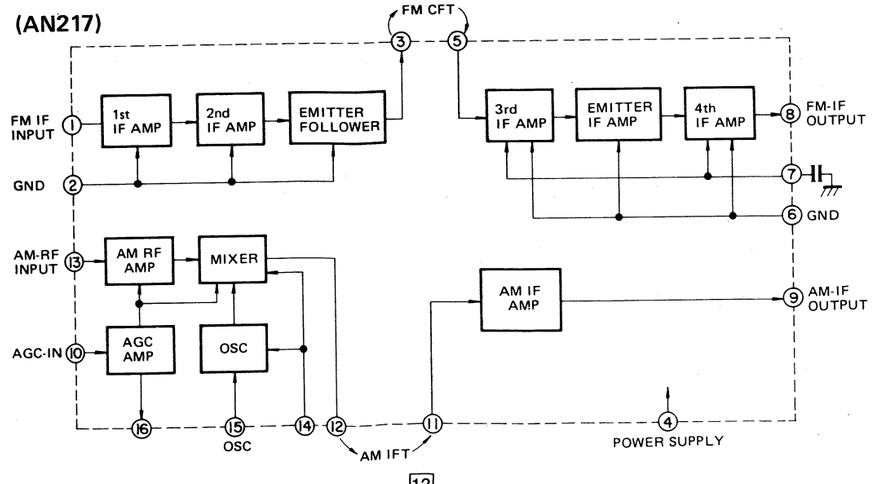
STK435



(LA3350A)



(AN217)



WIRING DIAGRAM

IC201

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
AM	0.8V	0.0V	2.8V	6.5V	1.1V	0.0V	1.1V	7.1V	6.9V	1.3V	0.8V	6.1V	0.7V	1.6V	6.9V	0.7V
FM	0.8V	0.0V	2.6V	6.1V	1.1V	0.0V	1.1V	7.0V	0.9V	1.0V	0.8V	0.9V	0.5V	0.9V	0.9V	0.5V

IC301

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
EYE ON	8.3V	2.9V	5.4V	4.7V	4.8V	0.8V	0V	0.3V	6.2V	2.1V	2.1V	2.4V	2.1V	2.1V	2.1V	2.7V
EYE OFF	8.4V	2.9V	5.4V	4.8V	4.9V	7.5V	0V	0.3V	6.2V	2.1V	2.1V	2.4V	2.1V	2.1V	2.1V	2.7V

IC701

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
VOLTAGE	7.0V	6.6V	0.0V	0.0V	16.2V	3.8V	33.4V	0V	32.6V	3.8V	16.2V	0.0V	0.0V	6.6V	7.0V

TR101

D	7.2V
G	0V
S	0V
IS	2.5mA

TR103

C	8.0V
B	0.6V
E	0.01V
IC	0.8mA

TR501, 502

C	9.0V
B	3.1V
E	2.5V
IC	2.5mA

TR601, 602

C	1.2V
B	0.7V
E	0.1V
IC	0.1mA

TR604

C	12.8V
B	1.2V
E	0.9V
IC	0.73mA

C-TR401, 402

C	1.3V
B	0.6V
E	0.02V
IC	0.12mA

C-TR405, 406

C	6.5V
B	1.0V
E	0.4V
IC	—

C-TR409, 410

C	7.0V
B	6.5V
E	5.9V
IC	—

C-TR412

	ALC ON	ALC OFF
C	9.6V	14.2V
B	1.1V	0V
E	0.6V	0V
IC	—	—

8-TR401, 402

C	1.2V
B	0.6V
E	0.02V
IC	0.1mA

8-TR405, 406

C	9.6V
B	5.4V
E	4.8V
IC	—

8-TR408

C	0V
E	0V
IC	—

8-TR801

C	14.2V
B	0V
E	0V
IC	—

TR102

C	3.8V
B	1.6V
E	0.9V
IC	0.7mA

TR201

	SIGNAL ON	SIGNAL OFF
C	0.2V	8.1V
B	0.7V	0.5V
E	0V	0V
IC	—	—

TR503, 504

C	6.8V
B	0.9V
E	0.3V
IC	1mA

TR603

C	12.8V
B	1.2V
E	0.7V
IC	0.72mA

TR901

C	14.4V
B	9.3V
E	8.7V
IC	—

C-TR403, 404

C	5.5V
B	1.3V
E	0.7V
IC	0.81mA

C-TR407, 408

C	0V
B	0.65V
E	0V
IC	—

C-TR411

C	18.1V
B	14.2V
E	13.7V
IC	—

C-TR413

C	0V
E	0V
IC	—

8-TR403, 404

C	5.4V
B	1.2V
E	0.6V
IC	0.27mA

8-TR407

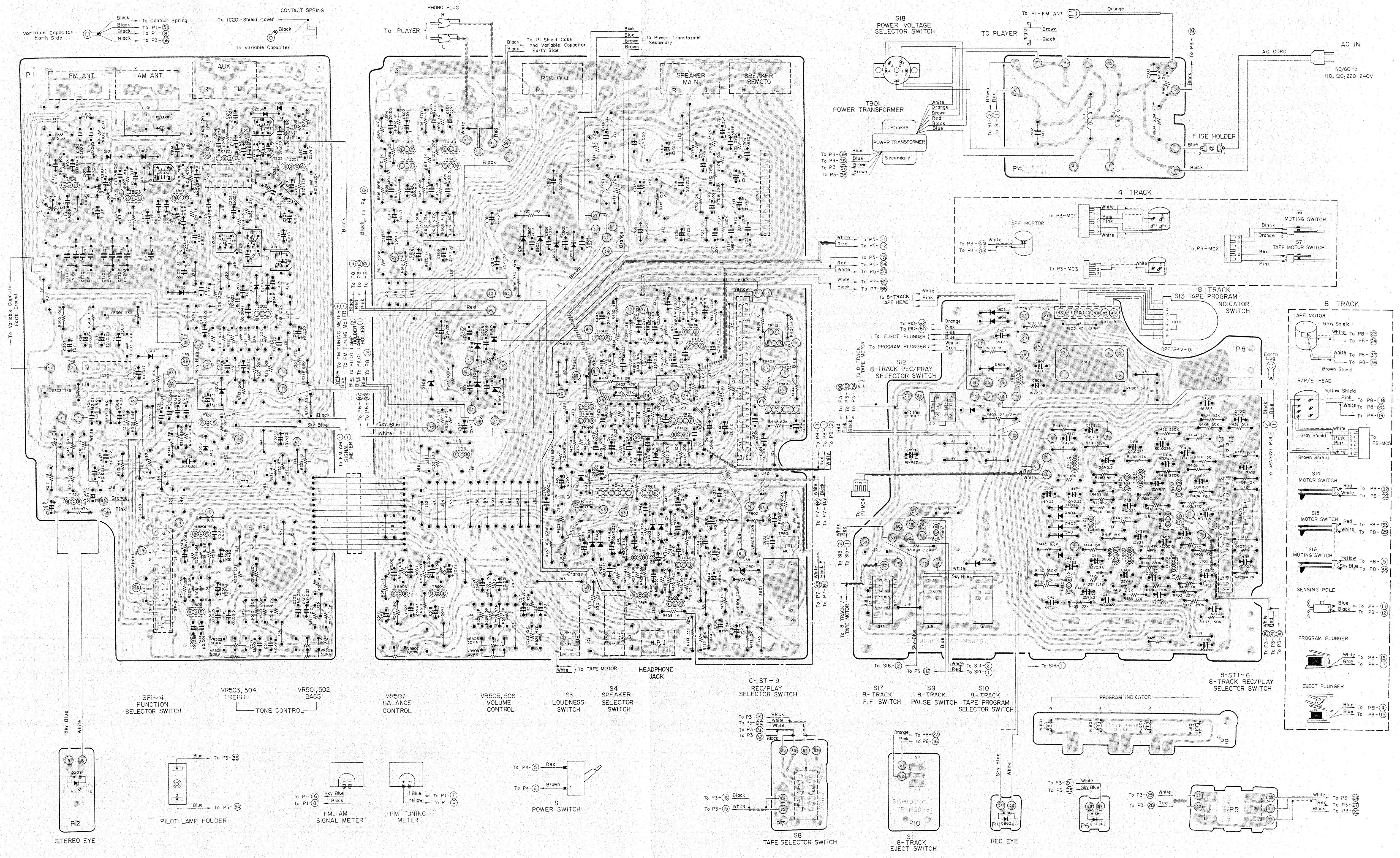
	ALC ON	ALC OFF
C	8.3V	9.6V
B	1.1V	0V
E	0.6V	0V
IC	—	—

8-TR409, 410

C	0V
B	0.6V
E	0V
IC	—

8-TR802

C	13.3V
B	0V
E	0V
IC	—

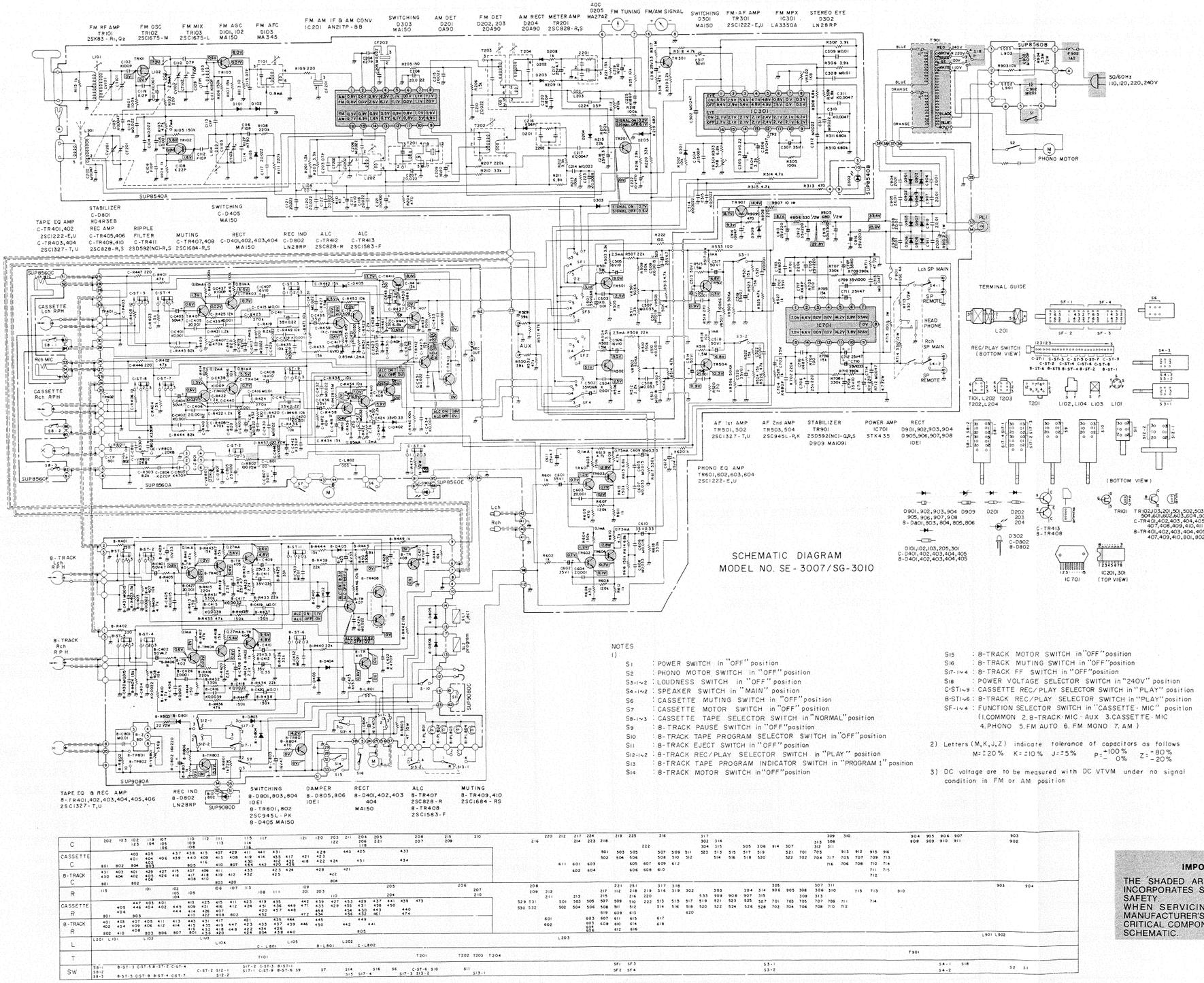


CONTACT SPRING
Variable Capacitor Earth Side
To Contact Spring
To IC201-Shield Cover
To Variable Capaciter
PHONO PLUG
To PLAYER
To P1 Shield Case And Variable Capacitor Earth Side
To Power Transformer Secondary
S18 POWER VOLTAGE SELECTOR SWITCH
T901 POWER TRANSFORMER
Primary
Secondary
To P1-FM ANT
TO PLAYER
AC CORD
AC IN
50/60Hz 110, 120, 220, 240V
FUSE HOLDER
P1
FM ANT
AM ANT
AUX
P3
REC OUT
SPEAKER MAIN
SPEAKER REMOTO
P4
4 TRACK
TAPE MORTOR
S6 MUTING SWITCH
S7 TAPE MOTOR SWITCH
8 TRACK
S13 TAPE PROGRAM INDICATOR SWITCH
To 8-TRACK TAPE HEAD
To EJECT PLUNGER
To PROGRAM PLUNGER
S12 8-TRACK PEC/PRAY SELECTOR SWITCH
P8
Earth Lug
TAPE MOTOR
Gray Shield
Brown Shield
R/P/E HEAD
Yellow Shield
S14 MOTOR SWITCH
S15 MOTOR SWITCH
S16 MUTING SWITCH
SENSING POLE
PROGRAM PLUNGER
EJECT PLUNGER
To FM TUNING METER
To PILOT LAMP HOLDER
To FM. AM SIGNAL METER
To Variable Capacitor Earth Ground
To TAPE MOTOR
HEADPHONE JACK
SF1~4 FUNCTION SELECTOR SWITCH
VR503, 504 TREBLE
VR501, 502 BASS
TONE CONTROL
VR507 BALANCE CONTROL
VR505, 506 VOLUME CONTROL
S3 LOUDNESS SWITCH
S4 SPEAKER SELECTOR SWITCH
C-ST~9 REC/PLAY SELECTOR SWITCH
S17 8-TRACK F.F SWITCH
S9 8-TRACK PAUSE SWITCH
S10 8-TRACK TAPE PROGRAM SELECTOR SWITCH
8-ST1~6 8-TRACK REC/PLAY SELECTOR SWITCH
PROGRAM INDICATOR
P9
P2
STEREO EYE
PILOT LAMP HOLDER
FM. AM SIGNAL METER
FM TUNING METER
S1 POWER SWITCH
P7
S8 TAPE SELECTOR SWITCH
P10
S11 8-TRACK EJECT SWITCH
P11
REC EYE
P6
P5

* This diagram might be modified without notice for further development of technology.

SE-3007/(E)

SCHEMATIC DIAGRAM



SCHEMATIC DIAGRAM
MODEL NO. SE-3007/SG-3010

NOTES

1)
- S1 : POWER SWITCH in "OFF" position
- S2 : PHONO MOTOR SWITCH in "OFF" position
- S3-1~2 : LOUDNESS SWITCH in "OFF" position
- S4-1~2 : SPEAKER SWITCH in "MAIN" position
- S6 : CASSETTE MUTING SWITCH in "OFF" position
- S7 : CASSETTE MOTOR SWITCH in "OFF" position
- S8-1~3 : CASSETTE TAPE SELECTOR SWITCH in "NORMAL" position
- S9 : 8-TRACK PAUSE SWITCH in "OFF" position
- S10 : 8-TRACK TAPE PROGRAM SELECTOR SWITCH in "OFF" position
- S11 : 8-TRACK EJECT SWITCH in "OFF" position
- S12-1~2 : 8-TRACK REC/PLAY SELECTOR SWITCH in "PLAY" position
- S13 : 8-TRACK TAPE PROGRAM INDICATOR SWITCH in "PROGRAM 1" position
- S14 : 8-TRACK MOTOR SWITCH in "OFF" position
- S15 : 8-TRACK MOTOR SWITCH in "OFF" position
- S16 : 8-TRACK MUTING SWITCH in "OFF" position
- SF-1~4 : 8-TRACK FF SWITCH in "OFF" position
- S18 : POWER VOLTAGE SELECTOR SWITCH in "240V" position
- C-ST1~9 : CASSETTE REC/PLAY SELECTOR SWITCH in "PLAY" position
- 8-ST1~6 : 8-TRACK REC/PLAY SELECTOR SWITCH in "PLAY" position
- SF-1~4 : FUNCTION SELECTOR SWITCH in "CASSETTE · MIC" position (1.COMMON 2.8-TRACK · MIC · AUX 3.CASSETTE · MIC 4.PHONO 5.FM AUTO 6.FM MONO 7.AM)

2) Letters (M,K,J,Z) indicate tolerance of capacitors as follows
M: ±20% K: ±10% J: ±5% P: +100% − 0% Z: +80% − 20%

3) DC voltage are to be measured with DC VTVM under no signal condition in FM or AM position

| | | |

REPLACEMENT PARTS LIST

NOTES:

1. Components identified by shaded area have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
2. The ○ mark indicates the new parts of the factory.

Ref. No.	Part No.	Description	Per Set (pcs.)
TRANSISTORS			
TR101	2SK83	FM RF AMP	1
TR102	2SC1675-L	FM OSC	1
TR103	2SC1675-L	FM MIX	1
TR201	2SC828	Meter AMP	1
TR301	2SC1327	FM AF AMP	1
TR501,502	2SC1327	AF 1st AMP	2
TR503,504	2SC945L	AF 2nd AMP	2
TR601,602	2SC1327	Phono EQ AMP	2
TR603,604	2SC1327	Phono EQ AMP	2
TR901	2SC1383	Stabilizer	1
TRANSISTORS (CASSETTE TAPE DECK)			
TR401,402	2SC1327	Tape EQ AMP	2
TR403,404	2SC1327	Tape EQ AMP	2
TR405,406	2SC828	REC AMP	2
TR407,408	2SC1684	Muting	2
TR409,410	2SC828	REC AMP	2
TR411	2SC1383	Ripple Filter	1
TR412	2SC828	ALC	1
TR413	2SC1583	ALC	1
TRANSISTORS (8-TRACK TAPE DECK)			
TR401,402	2SC1327	Tape EQ And REC AMP	2
TR403,404	2SC1327	Tape EQ And REC AMP	2
TR405,406	2SC1327	Tape EQ And REC AMP	2
TR407	2SC828	ALC	1
TR408	2SC1583	ALC	1
TR409,410	2SC1684	Muting	2
TR801,802	2SC945L	Switching	2
INTEGRATED CIRCUITS			
IC201	AN217	FM AM IF Amp/AM Conv	1
IC301	LS3350A	FM MPX	1
IC701	STK435	Power Amp	1
DIODES			
D101,102	MA150	FM AGC	2
D103	MA345	FM AFC	1
D201	20A90	AM DET	1
D202,203	20A90	FM DET	2
D204	20A90	AM RECT	1
D205	MA27A2	AOC	1
D301	MA150	Switching	1
D302	LN28RP	Stereo Eye	1
D303	MA150	Switching	1
D901,902	SM112	10E1	2
D903,904	SM112	10E1	2
D905,906	SM112	10E1	2
D907,908	SM112	10E1	2
D909	MA1091	Stabilizer	1
DIODES (CASSETTE TAPE DECK)			
D401,402	MA150	Rect 1	2
D403,404	MA150	Rect 1	2
D405	MA150	Switching	1
D801	RD4R3EB	Stabilizer	1
D802	LN28RP	REC IND	1
DIODES (8-TRACK TAPE DECK)			
D401,402	MA150	Rect 1	2
D403,404	MA150	Rect 1	2
D405	MA150	Switching	1
D801	SM112	Switching	1
D802	LN28RP	REC IND	1
D803,804	SM112	Switching	2
D805,806	SM112	Damper	2

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)
LAMPS AND FUSES			
PL1	XAMQ33P	380 mA Lamp	1
F901	XBA1M40NU14	125V 3A	1
F902	XBAS2A1004	1A Fuse	1
LAMPS AND FUSES (8-TRACK TAPE DECK)			
PL801～804	XAMR52X	Pilot Lamp, Program Indicator, 50 mA	4
METERS			
M1 ○	EMT10117	Signal Meter	1
M2 ○	ENT10118	Center Meter	1
COILS AND TRANSFORMERS			
L101	SLA4N2-O	ANT Coil, FM	1
L102	SLD4N22-M	Coil Coil, FM	1
L103	SLQY11G-2	Choke Coil	1
L104	SLO4N18-M	OSC Coil FM	1
L105	SLQY11G-2	Choke Coil	1
L201	SLF2D32-O	Ferrite Ant Coil	1
L202	RLO2M9-K	OSC Coil, AM	1
L203	SLQU270-2K	RFC	1
L901,902	SLQY35S-2S	Coil RFC	2
T101	RLI4M101	IFT FM 1st	1
T201	RLI7W105Q-M	CFT, AM	1
T202	SLI2M202-M	IFT, AM	1
T203	RLI4M501-M	IFT, FM Disc	1
T204	RLI4M502-M	IFT, FM Disc	1
T901	SLT5U10-W	Power Transformer	1
CF201,202	SVF107MA5V	CFT, FM	2
COILS AND TRANSFORMERS (CASSETTE TAPE DECK)			
L801,802	SLQU270-2K	RFC	1
COILS AND TRANSFORMERS (8-TRACK TAPE DECK)			
L801	SLQU270-2K	RFC	1
VARIABLE CAPACITORS			
CT103	RCVCTY12B218	Trimmer	1
CV101,102, 103,201, 202	ECV5MX25X26G	Tuning Capacitor w/Trimmer (CT101, 102,201,202)	1
VARIABLE RESISTORS			
VR301	EVTS3MA00B53	Preset 5 kΩ B	1
VR302	EVLS3AA00B13	Preset 1 kΩ B	1
VR501,502	EWK9HA085A54	Bass Tone 50 kΩ A	1
VR503,504	EWK9HA085A54	Treble Tone 50 kΩ A	1
VR505,506	EWKKAA085A54	Volume 50 kΩ A	1
VR507	EVHKNA026G15	Balance 100 kΩ G	1
VARIABLE RESISTORS (CASSETTE TAPE DECK)			
VR801	EVTS3MA00B24	Preset 20 kΩ B	1
VR802	EVLS3AA00B14	Preset 10 kΩ B	1
VR803	EVTS3MA00B24	Preset 20 kΩ B	1
VARIABLE RESISTORS (8-TRACK TAPE DECK)			
VR801	EVTS3MA00B53	Preset 5 kΩ B	1
SWITCHES			
S1	ESL2174T	Power	1
S3,4	ESL36208	Speaker, Loudness	2
S8 1-3 ○	SSL32	Tape Selector	1
S9 ○	SSL34	Pause	1
S10 ○	SSL36	Channel	1
S11 ○	SSH68	Eject	1
S12 1-2 ○	SSH66	Rec	1
S17 1-4 ○	SSL32	FF Selector	1
S18	ESE3742	Voltage Selector	1
SF1-4	SSR92	Function	1

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)
SWITCHES (CASSETTE TAPE DECK)			
ST2-9	ESD84006	Rec Play Selector	1
SWITCHES (8-TRACK TAPE DECK)			
ST1-6	ESD84006	Rec Play Selector	1
COMPONENT COMBINATIONS			
Z201	EXA5DL04C	C-R Combination	1
Z202	EXAF203Z471	C-R Combination	1
PACKING			
PA1 ○	SPN3258	Carton, Inside	1
PA2	SPN3236	Pad, Front	1
PA3	SPN3238	Pad, Rear	1
PA4	SPN3240	Pad, Dust Cover	1
PA5	SPP108	Set Cover	1
OSCILLATOR BLOCK (CASSETTE TAPE DECK)			
Z801	SLO9Z22-K	Oscillator Block	1
OSCILLATOR BLOCK (8-TRACK TAPE DECK)			
Z801	SLO9Z24-K	Oscillator Block	1
OTHERS			
1 ○	SQX5990	Instruction Book	1
2	SPSIHCCPRCZ	Demonstration Tape	1
3	WM2201P	Microphone	1
4	SJM2	Microphone Stand	1
5	AD1600	Adhesives	1
6	OL340	Silicone Oil (for Transistor/Power IC)	1
7	WKC40	Lubrication Oil Kit	1
7-1	(KF96H300KCS)	Silicone Oil (for Lifter)	1
7-2	(KF96H500KCS)	Silicone Oil (for Lifter)	1
7-3	(SZOGGP501A)	Grease (for Eject Arm)	1
7-4	(SZOGM0380)	Grease (for Player)	1
SPEAKER SYSTEM (SB-257)			
1	SKA2180	Speaker Box	2
2	SYB190	Baffle Assembly	2
3	SKU3040	Rear Cover	2
4	SGB321	Badge	2
5	EAS16P33GG	Speaker	2
6	EAS16PY122S	Drone Corn, Speaker	2
7	SJP2120	Speaker Cord	2
8	SGN3320	Name Plate	2
9	RJF3109	Terminal, RCA	2
10	SPN2872	Carton Box	1
11	SPN2876	Pad, Upper	2
12	SPN2878	Pad, Center	1
13	SPN2880	Soft cover	2
15	SPH6060	Pad, Center	1

REPLACEMENT PARTS LIST

Numbering System of Capacitor

Type	Voltage	Value	Tolerance
Four Letters	One or Two Letters	Two to Five Letters	One or Two Letters

Example:

E C K D 1 H 3 3 3 M D

Capacitor Type	Tolerance
ECCD: Temperature Compensation Ceramic	C: ±0.25pF
ECKD: Hi Dielectric Constant Ceramic	D: ±0.5pF
ECQM: Polyester	F: ±1pF
ECQS: Polystyrene Film	J: ±5%
ECFD: Semiconductor Ceramic	K: ±10%
ECEA: Electrolytic	M: ±20%
ECEB: Electrolytic	P: +100, −0%
ECET: Electrolytic	
ECSF: Tantalum	

Ref. No.	Part No.	Description		Per Set (pcs.)
CAPACITORS				
C102	ECKD1H101KB	100pF	50V	1
C103	ECKD1H472KB	0.0047μF	50V	1
C104	ECFD1E223MD	0.022μF	25V	1
C105	ECKD1H102KB	0.001μF	50V	1
C106	ECCD1H100F	10pF	50V	1
C107	ECKD1H102KB	0.001μF	50V	1
C108	ECCD1H220K	22pF	50V	1
C109	ECCD1H100F	10pF	50V	1
C110	ECCD1H070D	7pF	50V	1
C111	ECKD1H181KB	180pF	50V	1
C112	ECCD1H100F	10pF	50V	1
C113	ECCD1H010C	1pF	50V	1
C114	ECCD1H120KU	12pF	50V	1
C115	ECCD1H070D	7pF	50V	1
C116	ECCD1H100F	10pF	50V	1
C117,118	ECKD1H223ZF	0.022μF	50V	2
C119	ECCD1H120K	12pF	50V	1
C120,121	ECKD1H223ZF	0.022μF	50V	2
C122	ECKD1H223ZF	0.022μF	50V	1
C123	ECFD1E223MD	0.022μF	25V	1
C202	ECFD1E473MD	0.047μF	25V	1
C203	ECCD1H070D	7pF	50V	1
C204	ECCD1H270K	27pF	50V	1
C205,206	ECFD1E223MD	0.022μF	25V	2
C207,208	ECKD1H223ZF	0.022μF	50V	2
C209	ECEA1HS100	10μF	50V	1
C210	ECKD1H223ZF	0.022μF	50V	1
C211	ECEA1HS100	10μF	50V	1
C212	ECEA1JS4R7	4.7μF	63V	1
C214	ECFD1E223MD	0.022μF	25V	1
C215	ECKD1H223ZF	0.022μF	50V	1
C216	ECCD1H560K	56pF	50V	1
C217	ECKD1H472KB	0.0047μF	50V	1
C218	ECEA2AS3R3	3.3μF	100V	1
C219	ECEA1HS100	10μF	50V	1
C220	ECKD1H181KB	180pF	50V	1
C221	ECEA1AS101	100μF	10V	1
C222	ECEA1AS471	470μF	10V	1
C223	ECKD1H682KB	0.0068μF	50V	1
C224	ECCD1H050D	5pF	50V	1
C225	ECKD1H181KB	180pF	50V	1
C302	ECFD1E473MD	0.047μF	25V	1
C304	ECQS1152JZ	1500pF	125V	1
C305	ECSF35ER22T	0.22μF	35V	1
C306	ECSF35ER47T	0.47μF	35V	1
C307	ECSF35E1T	1μF	35V	1
C308,309	ECFD1E103MD	0.01μF	25V	2
C310,311	ECKD1H472KB	0.0047μF	50V	2
C312,313	ECFD1E223MD	0.022μF	25V	2
C314,315	ECKD1H222KB	0.0022μF	50V	2
C316	ECEA2AS3R3	3.3μF	100V	1
C317	ECEA2AS010	1μF	100V	1
C501,502	ECSF35ER68T	0.68μF	35V	2
C503,504	ECKD1H102KB	0.001μF	50V	2
C505,506	ECEA1HS100	10μF	50V	2
C507,508	ECFD1E333MD	0.033μF	25V	2
C509,510	ECKD1H152KB	0.0015μF	50V	2
C511,512	ECQM1H183MZ	0.018μF	50V	2
C513,514	ECEA2AS010	1μF	100V	2
C515,516	ECKD1H102KB	0.001μF	50V	2
C517,518	ECEA2AS010	1μF	100V	2
C519,520	ECSF35ER1T	0.1μF	35V	2
C521,522	ECKD1H102KB	0.001μF	50V	2
C523	ECEA35V47	47μF	35V	1
C601,602	ECSF35E1T	1μF	35V	2
C603,604	ECKD1H102ZF	0.001μF	50V	2
C605,606	ECFD1E153MD	0.015μF	25V	2
C607,608	ECFD1E333MD	0.033μF	25V	2
C609,610	ECSF35ER33T	0.33μF	35V	2
C611,612	ECEA1JS4R7	4.7μF	63V	2
C701,702	ECSF35E1T	1μF	35V	2
C703,704	ECKD1H681KB	680pF	50V	2
C705,706	ECEA1ES221	220μF	25V	2
C707,708	ECEA1HS100	10μF	50V	2
C709,710	ECEA1VS102	1000μF	35V	2
C711,712	ECEA35V47	47μF	35V	2
C713,714	ECQM1H473MZ	0.047μF	50V	2
C715	ECEA50V220	220μF	50V	1
C716,717	ECCD1H680K	68pF	50V	2
C902	ECKDHS103SE	0.01μF	400V	1
C903	ECKDHS101MB	100pF	400V	1
C904,905	ECKD1H103ZF	0.01μF	50V	2
C906,907	ECKD1H103ZF	0.01μF	50V	2
C908,909	ECKD1H103ZF	0.01μF	50V	2
C910,911	ECKD1H103ZF	0.01μF	50V	2

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)
C912	ECEA1VS221	220μF 35V	1
C913	ECEA1ES221	220μF 25V	1
C914	ECEA1AS470	47μF 10V	1
C915	ECET50R332SW	3300μF 50V	1
C916	ECET25R222SV	2200μF 25V	1
CAPACITORS (CASSETTE TAPE DECK)			
C401,402	ECKD1H102KB	0.001μF 50V	2
C403,404	ECEA50M4R7	4.7μF 50V	2
C405,406	ECKD1H102ZF	0.001μF 50V	2
C407,408	ECEA1HS100	10μF 50V	2
C409,410	ECEA1HS100	10μF 50V	2
C411,412	ECSF35ER22T	0.22μF 35V	2
C413,414	ECFD1E223MD	0.022μF 25V	2
C415,416	ECFD1E103MD	0.01μF 25V	2
C417,418	ECEA1HS100	10μF 50V	2
C419,420	ECKD1H102KB	0.001μF 50V	2
C421,422	ECFD1E333MD	0.033μF 25V	2
C423,424	ECSF35ER33T	0.33μF 35V	2
C425	ECEA1CS330	33μF 16V	1
C428	ECEA1HS100	10μF 50V	1
C429,430	ECFD1E223MD	0.022μF 25V	2
C431,432	ECFD1E223MD	0.022μF 25V	2
C433,434	ECKD1H102KB	0.001μF 50V	2
C435,436	ECSF35E1T	1μF 35V	2
C437,438	ECKD1H101KB	100pF 50V	2
C439,440	ECKD1H102KB	0.001μF 50V	2
C441,442	ECKD1H331KB	330pF 50V	2
C443	ECEA1ES101	100μF 25V	1
C444	ECEA1CS102	1000μF 16V	1
C451	ECFD1E223MD	0.022μF 25V	1
C801,802	ECKD1H331KB	330pF 50V	2
C803	ECKD1H471KB	470pF 50V	1
C804	ECKD1H221KB	220pF 50V	1
C805	ECEA1ES101	100μF 25V	1
C807	ECEA2AS010	1μF 100V	1
CAPACITORS (8-TRACK TAPE DECK)			
C401,402	ECEA50M4R7	4.7μF 50V	2
C403,404	ECKD1H222KB	0.0022μF 50V	2
C405,406	ECKD1H152KB	0.0015μF 50V	2
C407,408	ECEA1JS4R7	4.7μF 63V	2
C409,410	ECEA2AS3R3	3.3μF 100V	2
C411,412	ECSF35ER33T	0.33μF 35V	2

Ref. No.	Part No.	Description	Per Set (pcs.)
C415,416	ECKD1H392KB	0.0039μF 50V	2
C417,418	ECKD1H222KB	0.0022μF 50V	2
C419,420	ECFD1E103MD	0.01μF 25V	2
C421,422	ECKD1H471KB	470pF 50V	2
C423	ECEA1CS330	33μF 16V	1
C424	ECFD1E223MD	0.022μF 25V	1
C425	ECEA1CS330	33μF 16V	1
C426,427	ECKD1H102ZF	0.001μF 50V	2
C428	ECEA1ES101	100μF 25V	1
C429	ECEA1CS330	33μF 16V	1
C430,431	ECFD1E153MD	0.015μF 25V	2
C432,433	ECFD1E103MD	0.01μF 25V	2
C801	ECFD1E103MD	0.01μF 25V	1
C802	ECEA1CS221	220μF 16V	1
C803	ECEA1ES470	47μF 25V	1
C804	ECEA1CS471	470μF 16V	1

REPLACEMENT PARTS LIST

Numbering System of Resistor

Type	Wattage	Tolerance	Value
Three Letters	One or Two Letters	Two or Three Letters	Three or Four Letters

Example:

E R D 2 5 T J 1 0 1

Resistor Type	Tolerance
ERD: Carbon Film	F: ±1%
ERC: Solid	J: ±5%
ERX: Metal Film	K: ±10%
ERG: Metal Oxide Film	
ERO: Hi Stability Metal Film	
ERF: Flameproof Wire-Wound Bath-Tube	
ERQ: Fuse Type Metal Film	

Ref. No.	Part No.	Description		Per Set (pcs.)
RESISTORS				
R101	ERD25TJ104	100kΩ	1/4W	1
R102	ERD25TJ221	220kΩ	1/4W	1
R103	ERD25TJ472	4.7kΩ	1/4W	1
R104	ERD25TJ102	1kΩ	1/4W	1
R105,106	ERD25TJ154	150kΩ	1/4W	2
R107	ERD25TJ153	15kΩ	1/4W	1
R108	ERD25TJ224	220kΩ	1/4W	1
R109	ERD25TJ221	220Ω	1/4W	1
R110	ERD25TJ470	47Ω	1/4W	1
R111	ERD25TJ224	220kΩ	1/4W	1
R112	ERD25TJ474	470kΩ	1/4W	1
R113	ERD25TJ100	10Ω	1/4W	1
R115	ERD25TJ102	1kΩ	1/4W	1
R201	ERD25TJ152	1.5kΩ	1/4W	1
R203	ERD25TJ332	3.3kΩ	1/4W	1
R204	ERD25TJ471	470Ω	1/4W	1
R205	ERD25TJ151	150Ω	1/4W	1
R206	ERD25TJ152	1.5kΩ	1/4W	1
R207	ERD25TJ224	220kΩ	1/4W	1
R208,209	ERD25TJ102	1kΩ	1/4W	2
R210	ERD25TJ333	33kΩ	1/4W	1
R211	ERD25TJ682	6.8kΩ	1/4W	1
R212	ERD25TJ332	3.3kΩ	1/4W	1
R213	ERD25TJ104	100kΩ	1/4W	1
R215	ERD25TJ223	22kΩ	1/4W	1
R216	ERD25TJ393	39kΩ	1/4W	1
R217	ERD25TJ224	220kΩ	1/4W	1
R218	ERD25TJ104	100kΩ	1/4W	1
R219	ERD25TJ681	680Ω	1/4W	1
R220	ERD25TJ333	33kΩ	1/4W	1
R221	ERD25TJ153	15kΩ	1/4W	1
R222	ERD25TJ100	10Ω	1/4W	1

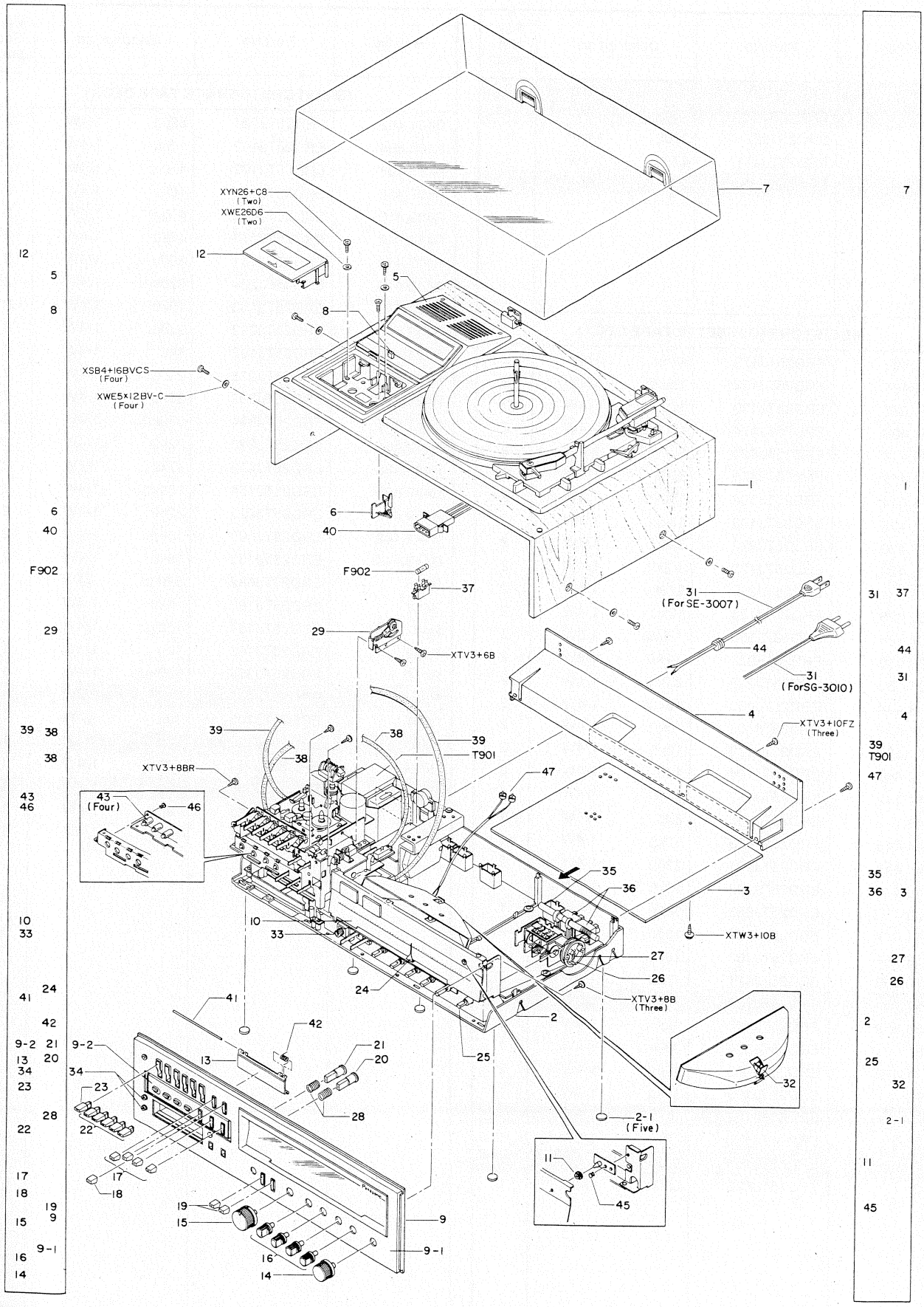
Ref. No.	Part No.	Description		Per Set (pcs.)
R251	ERD25TJ103	10kΩ	1/4W	1
R302	ERD25TJ103	10kΩ	1/4W	1
R303	ERD25TJ682	6.8kΩ	1/4W	1
R304	ERD25TJ332	3.3kΩ	1/4W	1
R305	ERD25TJ104	100kΩ	1/4W	1
R306,307	ERD25TJ392	3.9kΩ	1/4W	2
R308,309	ERD25TJ682	6.8kΩ	1/4W	2
R310,311	ERD25TJ684	680kΩ	1/4W	2
R313	ERD25TJ471	470Ω	1/4W	1
R314,315	ERD25TJ472	4.7kΩ	1/4W	2
R316	ERD25TJ473	47kΩ	1/4W	1
R317	ERD25TJ105	1MΩ	1/4W	1
R318	ERD25TJ472	4.7kΩ	1/4W	1
R319	ERD25TJ222	2.2kΩ	1/4W	1
R433,434	ERD25TJ153	15kΩ	1/4W	2
R501,502	ERD18TJ155	1.5MΩ	1/8W	2
R503,504	ERD25TJ332	3.3kΩ	1/2W	2
R505,506	ERD25TJ102,	1kΩ	1/4W	2
R507,508	ERD25TJ223	22kΩ	1/4W	2
R509,510	ERD25TJ154	150kΩ	1/4W	2
R511,512	ERD25TJ222	2.2kΩ	1/4W	2
R513,514	ERD25TJ472	4.7kΩ	1/4W	2
R515,516	ERD18TJ155	1.5MΩ	1/8W	2
R517,518	ERD25TJ103	10kΩ	1/4W	2
R519,520	ERD25TJ271	270Ω	1/4W	2
R521,522	ERD25TJ153	15kΩ	1/4W	2
R523,524	ERD25TJ153	15kΩ	1/4W	2
R525,526	ERD25TJ473	47kΩ	1/4W	2
R527,528	ERD25TJ102	1kΩ	1/4W	2
R529,530	ERD25TJ393	39kΩ	1/4W	2
R531,532	ERD25TJ473	47kΩ	1/4W	2
R533	ERD25TJ101	100Ω	1/4W	1
R601,602	ERD25TJ102	1kΩ	1/4W	2
R603,604	ERD25TJ154	150kΩ	1/4W	2
R605,606	ERD25TJ471	470Ω	1/4W	2
R607,608	ERD25TJ124	120kΩ	1/4W	2
R609,610	ERD25TJ472	4.7kΩ	1/4W	2
R611,612	ERD25TJ102	1kΩ	1/4W	2
R613,614	ERD25TJ682	6.8kΩ	1/4W	2
R615,616	ERD25TJ154	150kΩ	1/4W	2
R617,618	ERD25TJ334	330kΩ	1/4W	2
R619	ERD25TJ472	4.7kΩ	1/4W	1
R620	ERD25TJ102	1kΩ	1/4W	1
R701,702	ERD25TJ224	220kΩ	1/4W	2
R703,704	ERD25TJ101	100Ω	1/4W	2
R705,706	ERD25TJ153	15kΩ	1/4W	2
R707,708	ERD25TJ334	330kΩ	1/4W	2
R709,710	ERD25TJ394	390kΩ	1/4W	2
R711,712	ERC12GK4R7	4.7Ω	1/2W	2
R713,714	ERC12GK331	330Ω	1/2W	2
R715	ERG1ANJ101	100Ω	1W	1
R903	ERD25TJ103	10kΩ	1/4W	1
R904	ERC12ZGK335	3.3MΩ	1/2W	1
R905	ERD50TJ681	680Ω	1/2W	1

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description		Per Set (pcs.)
R906	ERD14FJ331	330Ω	1/4W	1
R907	ERX1ANJ100	10Ω	1W	1
R908	ERD25TJ221	220Ω	1/4W	1
R909	ERD25TJ471	470Ω	1/4W	1
R910	ERX1ANJ2R2	2.2Ω	1W	1
RESISTORS (CASSETTE TAPE DECK)				
R401,402	ERD25TJ473	47kΩ	1/4W	2
R403,404	ERD25TJ152	1.5kΩ	1/4W	2
R405,406	ERD25TJ100	10Ω	1/4W	2
R407,408	ERD25TJ474	470kΩ	1/4W	2
R409,410	ERD25TJ820	82Ω	1/4W	2
R411,412	ERD25TJ821	820Ω	1/4W	2
R413,414	ERD25TJ104	100kΩ	1/4W	2
R415,416	ERD25TJ103	10kΩ	1/4W	2
R419,420	ERD25TJ822	8.2kΩ	1/4W	2
R421,422	ERD25TJ122	1.2kΩ	1/4W	2
R423,424	ERD25TJ274	270kΩ	1/4W	2
R425,426	ERD25TJ123	12kΩ	1/4W	2
R427,428	ERD18TJ155	1.5MΩ	1/8W	2
R429,430	ERD25TJ222	2.2kΩ	1/4W	2
R431,432	ERD25TJ222	2.2kΩ	1/4W	2
R433,434	ERD25TJ153	15kΩ	1/4W	2
R435,436	ERD25TJ103	10kΩ	1/4W	2
R437,438	ERD25TJ103	10kΩ	1/4W	2
R439,440	ERD25TJ104	100kΩ	1/4W	2
R441,442	ERD25TJ153	15kΩ	1/4W	2
R443	ERD25TJ682	6.8Ω	1/4W	1
R444,445	ERD25TJ823	82kΩ	1/4W	2
R446,447	ERD25TJ221	220Ω	1/4W	2
R448,449	ERD25TJ103	10kΩ	1/4W	2
R450	ERD25TJ683	68kΩ	1/4W	1
R451,452	ERD25TJ101	100Ω	1/4W	2
R453,454	ERD25TJ103	10kΩ	1/4W	2
R455,456	ERD25TJ471	470Ω	1/4W	2
R457	ERD12FJ101	100Ω	1/2W	1
R458,459	ERD25TJ102	1kΩ	1/4W	2
R461	ERD25TJ334	330kΩ	1/4W	1
R471,472	ERD25TJ103	10kΩ	1/4W	2
R473	ERD25TJ103	10kΩ	1/4W	1
R474	ERD50TJ102	1kΩ	1/2W	1
R801	ERD18TJ1R0	1Ω	1/8W	1
R802	ERD12FJ101	100Ω	1/2W	1
R803	ERD25TJ822	8.2kΩ	1/4W	1

Ref. No.	Part No.	Description		Per Set (pcs.)
RESISTORS (8-TRACK TAPE DECK)				
R401,402	ERD25TJ221	220Ω	1/4W	2
R403,404	ERD25TJ152	1.5kΩ	1/4W	2
R405,406	ERD25TJ102	1kΩ	1/4W	2
R407,408	ERD25TJ103	10kΩ	1/4W	2
R409,410	ERD25TJ472	4.7kΩ	1/4W	2
R411,412	ERD25TJ473	47kΩ	1/4W	2
R413,414	ERD25TJ151	150Ω	1/4W	2
R415,416	ERD25FJ224	220kΩ	1/4W	2
R417,418	ERD25TJ153	15kΩ	1/4W	2
R419,420	ERD25TJ222	2.2kΩ	1/4W	2
R421,422	ERD25TJ102	1kΩ	1/4W	2
R423,424	ERD25TJ222	2.2kΩ	1/4W	2
R425,426	ERD25TJ333	33kΩ	1/4W	2
R431,432	ERD25TJ334	330kΩ	1/4W	2
R433,434	ERD25TJ223	22kΩ	1/4W	2
R435,436	ERD25TJ473	47kΩ	1/4W	2
R437,438	ERD25TJ154	150kΩ	1/4W	2
R439,440	ERD25TJ223	22kΩ	1/4W	2
R441,442	ERD25TJ103	10kΩ	1/4W	2
R443,444	ERD25TJ153	15kΩ	1/4W	2
R445	ERD25TJ682	6.8kΩ	1/4W	1
R446	ERD25TJ103	10kΩ	1/4W	1
R447,448	ERD25TJ154	150kΩ	1/4W	2
R449	ERD25TJ102	1kΩ	1/4W	1
R450	ERD25TJ334	330kΩ	1/4W	1
R801	ERD50TJ102	1kΩ	1/2W	1
R802	ERD25TJ100	10Ω	1/4W	1
R803	ERD50TJ220	22Ω	1/2W	1
R804	ERD25TJ471	470Ω	1/4W	1
R805	ERD50TJ470	47Ω	1/2W	1
R806	ERD25TJ103	10kΩ	1/4W	1
R807	ERD25TJ102	1kΩ	1/4W	1

PARTS LOCATION OF CABINET AND CHASSIS

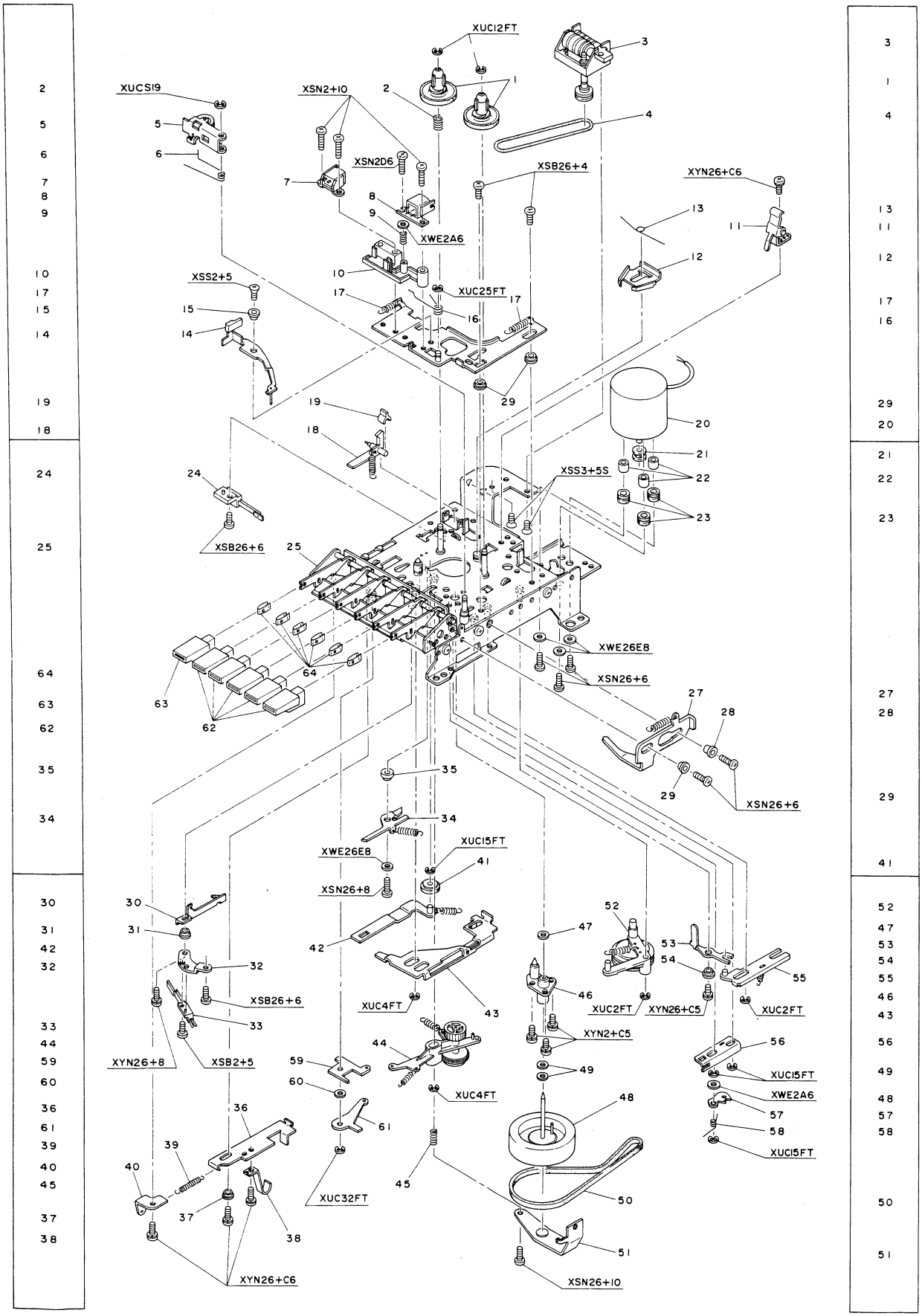


REPLACEMENT PARTS LIST OF CABINET AND CHASSIS

Ref. No.		Part No.	Description	Per Set (pcs.)
1	○	SKA2480	Cabinet Ass'y A	1
2		SKA2300	Cabinet Ass'y B	1
2-1		(SHS3036)	Foot Felt	(5)
2-2	○	(SGN3780)	Name Plate	(1)
3		SYU340	Bottom Cover Ass'y	1
4	○	SYK1578	Rear Cover Ass'y	1
5	○	SYE588	Cassette Cover Ass'y	1
6		SXE108	Hook Ass'y	1
7		SYE464	Dust Cover Ass'y	1
8		SBC206	Reset Button	1
9	○	SYP372	Escutcheon Ass'y	1
9-1	○	(SGW4860)	Panel, Front	(1)
9-2	○	(SGK628)	Panel, 8-Track	(1)
10		SKD4023	Dial Scale	1
11		SGX1064	Ornament, Stereo Indicator	1
12		SYE394-1	Cassette Lid Ass'y	1
13		SGX992-1	Cartridge, Lid	1
14		SBN750	Tuning Knob	1
15		SBN752	Volume Knob	1
16		SBN754	Selector Knob	4
17		SBC314	Lever Button B	4
18		SBC270-1	Power Lever Button	1
19	○	SYE494-5	Lever Button A	2
20	○	SBC300	Push Button	1
21		SBC212	Push Button, Power	1
22	○	SBC296-2	Button	5
23	○	SBC296-3	Button, REC	1
24		SDP192	Dial Pointer Ass'y	1
25		SDT9252-5	Tuning Shaft	1
26		RDD382YA	Dial Drum	1
27		RDS4090A	Spring	1
28		SUS184-1	Spring	2
29	○	SXE136	Eject Arm Ass'y	1
31		RJA9YA-K	Power Cord	1
32		SJF106-1	Lamp Holder	1
33		SJJ84	Head Phone Jack	1
34		RJJ48A	Mick Jack	2
35		SJF3208	Terminal 2P	4
36		SJF4212	Terminal, Antenna	2
37		SJF104	Fuse Holder	1
38		ESA2056	Remote Wire Ass'y	1
39	○	ESA2058-T	Remote Wire Ass'y	1
40		SKE236	Changer Spring Cap	1
41		SUH20	Shaft, 8-Track	1
42		SUS152	Spring, 8-Track	1
43		SMP124	Lamp Holder	1
44		SHR102	Power Cord Clamp	1
45		SHR9112	Latch	1
46		SHR969ZA	Latch	1
47		SJP2222	Plug w/Lead	1

Ref. No.	Part No.	Description	Per Set (pcs.)

EXPLODED VIEW OF CASSETTE TAPE DECK (SJD540)

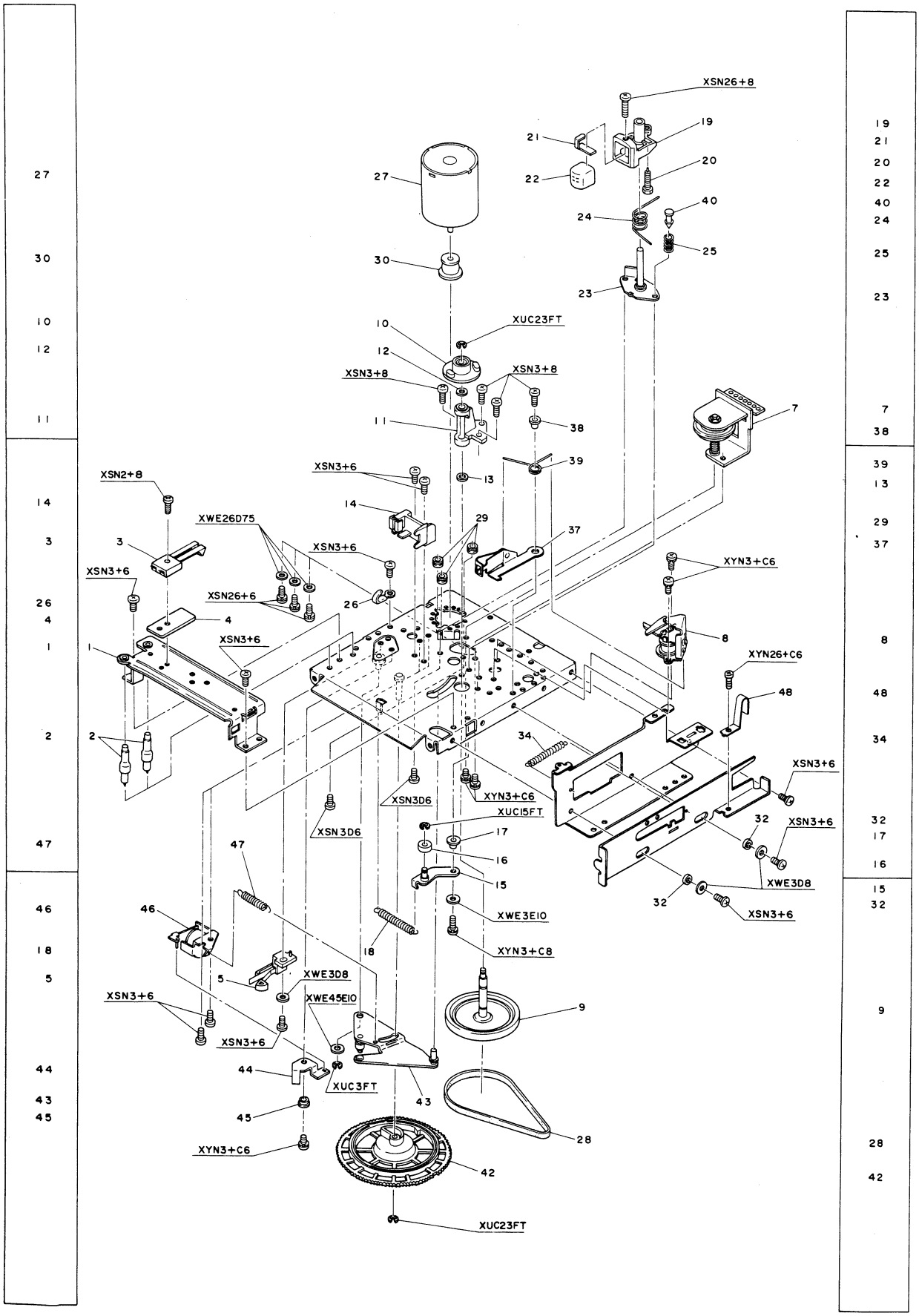


REPLACEMENT PARTS LIST OF CASSETTE TAPE DECK (SJD540)

CASSETTE TAPE DECK (SJD540)

Ref. No.	Part No.	Description	Per Set (pcs.)
1	SMQ1626	Reel Table	2
2	SMQ462	Spring, Supply Reel	1
3	SMQ1344	Tape Counter	1
4	SMQ1588	Belt, Counter	1
5	SMQ1364	Pressure Roller Assembly	1
6	SMQ1366	Spring, Pressure Roller	1
7	SJH14	Erase Head	1
8	SJH30	R/P Head	1
9	SMQ678	Spring, R/P Head	1
10	SMQ1362-1	Head Base	1
11	SMQ1818	Tape Holder Assembly	1
12	SMQ1354	Brake Arm	1
13	SMQ1358	Spring, Brake Arm	1
14	SMQ1390	Lever Assembly, Auto-Stop	1
15	SMQ1392	Spacer, Auto-Stop Lever	1
16	SMQ1444	Spring B, Head Panel	1
17	SMQ1360	Spring A, Head Panel	2
18	SMQ1232-1	Lever, REC Safety w/Spring	1
19	SMQ1706	Stopper, REC Safety Lever	1
20	MHT5PT2TX	Motor	1
21	SMQ1802	Motor Pulley	1
22	SMQ718	Spacer, Motor	3
23	SMQ716	Rubber Cushion, Motor	3
24	SMQ1378	Leaf Switch, Motor ON-OFF	1
25	SMQ2044	Push Button Frame Assembly	1
27	SMQ2040	Lever, Eject Slide w/Spring	1
28	SMQ1374	Spacer A	1
29	SMQ1398	Spacer B	3
30	SMQ1530-1	Play Lever	1
31	SMQ1524	Spacer, Play Lever	1
32	SMQ1528	Bracket, AMP. Switch	1
33	SMQ1380	Leaf Switch, Tape AMP. ON-OFF	1
34	SMQ1436-1	Lever, Auto-Stop Drive w/Spring	1
35	SMQ1438	Spacer, Auto-Stop Lever	1
36	SMQ1650	Lever, REC Slide	1
37	SMQ1426	Spacer, REC Slide Lever	1
38	SUS208-1	Spring Plate, REC Switch	1
39	SMQ1638	Spring, REC Slide Lever	1
40	SMQ1652	Spring, Hanger	1
41	SMQ1386	Rewind Idler	1
42	SMQ1408	Rewind Arm Assembly w/Spring	1
43	SMQ1406	Operation Plate, Brake	1
44	SMQ1382-1	FF Arm Assembly w/Spring	1
45	SMQ678	Spring, Flywheel Retainer	1
46	SMQ1370-1	Shaft, Flywheel	1
47	SMQ1402	Nylon Washer	1
48	SMQ1782	Flywheel	1
49	SMQ148	Washer, Oil Thrower	2
50	SMQ1688	Belt, Main	1
51	SMQ1404	Retainer, Flywheel	1
52	SMQ1672-1	Clutch Assembly w/Spring	1
53	SMQ1410	Pause Lever	1
54	SMQ1412	Spacer, Pause Lever	1
55	SMQ1414	Pause Slide Lever A w/Spring	1
56	SMQ1416	Pause Slide Lever B	1
57	SMQ1376	Pause Click Lever	1
58	SMQ1418	Spring, Pause Click Lever	1
59	SMQ1430	Rewind Lever	1
60	SMQ1434	Nylon Washer ϕ6.1	1
61	SMQ1432	FF Lever	1
62	SBC296-2	Push Button	5
63	SBC296-3	Push Button, REC	1
64	SMQ1868	Spring, Push Button	6

EXPLODED VIEW OF 8-TRACK TAPE DECK (SJD224)



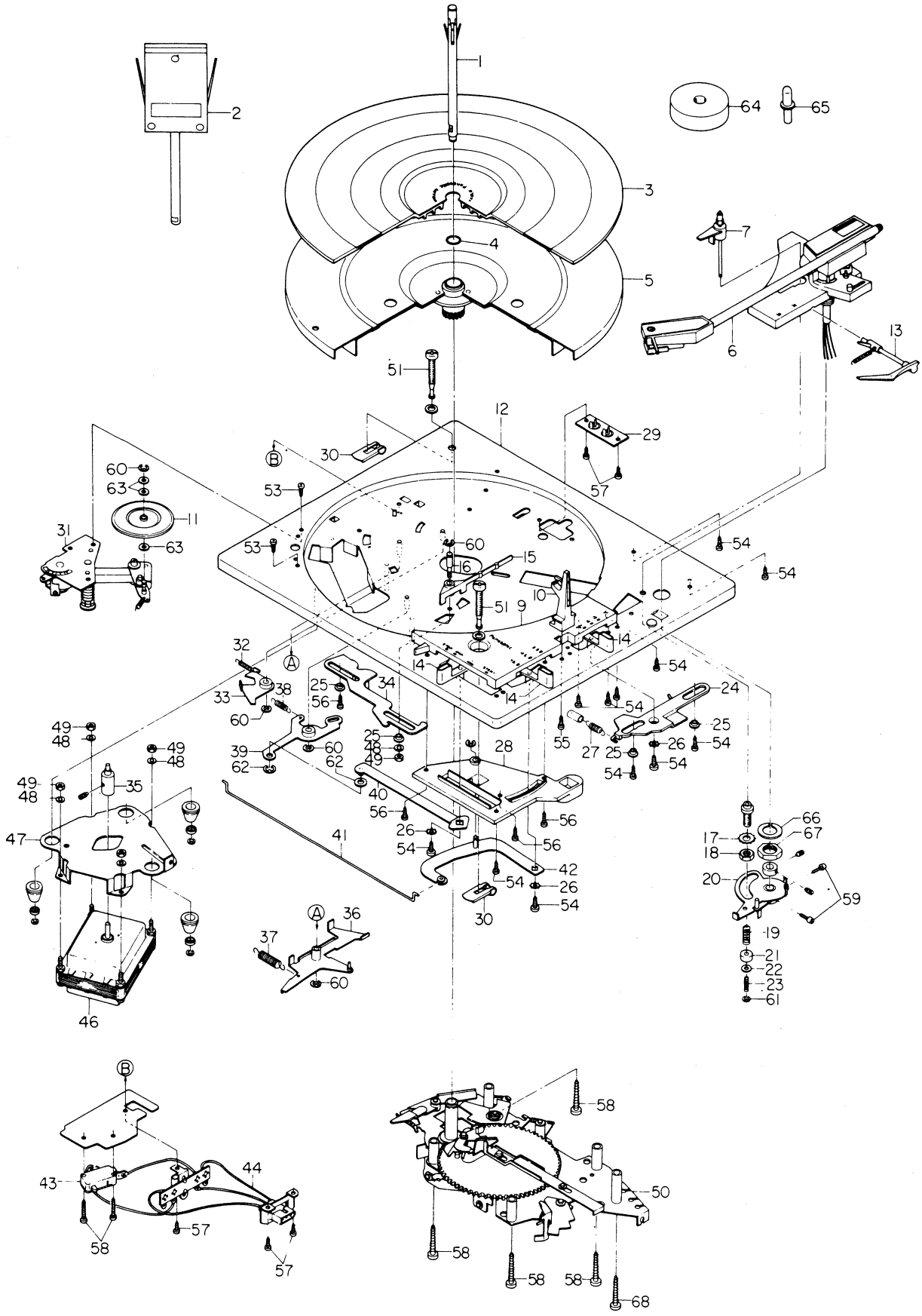
REPLACEMENT PARTS LIST OF 8-TRACK TAPE DECK (SJD224)

8-TRACK TAPE DECK (SJD224)

Ref. No.	Part No.	Description	Per Set (pcs.)
1	SMQ1464	Pack Cover	1
2	SMQ290	Pack Roller	2
3	SMQ1630	Leaf Switch, Motor ON-OFF	1
4	SMQ1584-1	Switch Plate	1
5	SMQ1590	Leaf Switch, Eject	1
7	SMQ1794-1	4 Cam Assembly	1
8	SMQ1738	Solenoid Assembly	1
9	SMQ1592-1	Flywheel Assembly	1
10	SMQ1474	Channel Switching Cam	1
11	SMQ1596	Flywheel Metal	1
12	SMQ1478	Thrust Washer	1
13	SMQ1480	F Washer	1
14	SMQ1482-1	Tape Guide Assembly	1
15	SMQ1484	Pressure Roller Arm Assembly	1
16	SMQ1518	Pressure Roller	1
17	SMQ1486	Pressure Roller Arm Metal	1
18	SMQ1488	Spring, Pressure Roller Arm	1
19	SMQ1490	Head Housing	1
20	SMQ1492	Screw, Height Adjust	1
21	SMQ1494	Earth Plate	1
22	WY823F	Head	1
23	SMQ1730	Head Base Assembly	1
24	SMQ1498	Spring, Head Support	1
25	SMQ1734	Spring, Head Vertical Adjust	1
26	SMQ1500	Cord Clamp	1
27	MYF5BEX3W3	Motor	1
28	SMQ1502	Belt	1
29	SMQ1504	Insulator	3
30	SMQ1628	Pulley, Motor	1
32	SMQ1600	Collar, REC Lever	2
34	SMQ1638	Spring, REC Lever	1
37	SMQ2032	REC Push Arm Assembly	1
38	SMQ2034	Collar, REC Push Arm	1
39	SMQ1516	Spring, REC Push Arm	1
40	SMQ1732	Insert Pin	1
42	SMQ1610	Gear	1
43	SMQ1612	Kick Plate Assembly	1
44	SMQ1614	Stop Plate	1
45	SMQ1616	Collar, Stop Plate	1
46	SMQ1618	Eject Solenoid Ass'y	1
47	SMQ1620	Spring, Kick Plate	1
48	SUS208-1	Spring Plate, REC Swich	1

Ref. No.	Part No.	Description	Per Set (pcs.)

EXPLODED VIEW OF RECORD CHANGER (SP910JM)

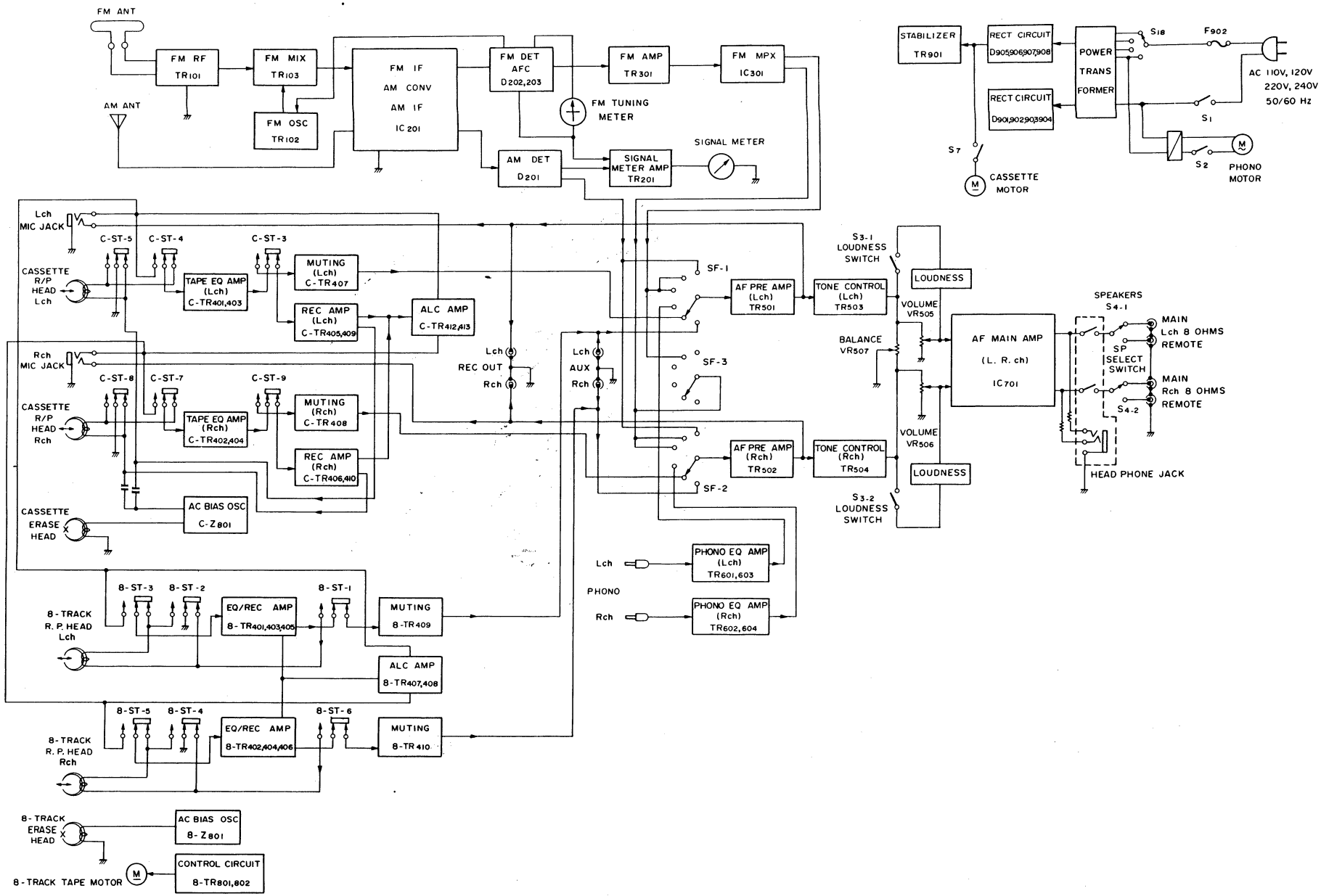


REPLACEMENT PARTS LIST OF RECORD CHANGER (SP910JM)

AUTOMATIC RECORD CHANGER SP910JM

Ref. No.	Part No.	Description	Per Set (pcs.)
1	SFVS910-1Z	Automatic Spindle	1
2	SH45A	45 r.p.m. Automatic Spindle	1
3	SFTG910C1A	Turntable Mat Assembly	1
4	SFXT910-1	Stopper Ring	1
5	SFTE913-1E	Turntable Assembly	1
6	EPU24SMGD	Pickup arm Assembly	1
7	SFKR910-1A	Lift Assembly	1
9	SFKC913B01	Escutcheon Moulding B	1
10	SFKU913-1A	Arm Rest Assembly	1
11	SFMI411-1E	Idler Wheel Assembly	1
12	SFBP913AA	Main Plate Assembly	1
13	SFKT910-1E	Cueing Lever Assembly	1
14	SFKT910A1	Speed Selector Lever	1
15	SFUM910-2	Push Lever	1
16	SFXG910-1	Shaft	1
17	XWA8BFX	Spring Washer	1
18	XNG8HFX	Nut	1
19	SFQA910-5	Spring	1
20	SFUP910-6A	P.U. Control Lever Rivetting Ass'y	1
21	SFXB910-7	Collar	1
22	SFXW910-5	Washer	1
23	SFQA910-4	Spring	1
24	SFUM910-3	Select Lever	1
25	SFXW910-1	Collar	4
26	XWC4BFY	Washer	1
27	SFQH327-2	Spring	1
28	SFUM910-5	Knob Slide Base	1
29	SJF3201-1	Pin Jack Receptacle	1
30	SFUP411-6	Retaining Clip	2
31	SFMT910-1A	Speed Change Base Plate Ass'y	1
32	SFQH831-2	Spring	1
33	SFUP910-2E	Idler Off Latch Assembly	1
34	SFUM910-1	Trip Lever	1
35	SFMC9106	Motor Pulley 60Hz	
	SFMC9105	Motor Pulley 50 Hz	1
36	SFUP91910-1E	Idler Off Lever	1
37	SFQH910-1	Spring	1
38	SFQH910-2	Spring	1
39	SFUP910-3E	Reject Rod B Assembly	1
40	SFUP910-4E	Reject Rod A Assembly	1
41	SFQS910-1	Speed Change Rod	1
42	SFUP910-5E	Speed Change Lever	1
43	SFDSAM320039	Switch	1
44	SFDA910G01	AC Plug Assembly	1
46	4M15V1PL	Motor Assembly	1
47	SFMF910J-01	Motor Plate Assembly	1
48	SWA4BFM	Spring Washer	3
49	XNG4HFU	Nut	3
50	SFUK910-1Z	Base Plate Complete Ass'y	1
51	SFXG411-1	Transit Screw	2
53	XTU3+6BFU	Screw	6
54	XTN3+8BFU	Screw	17
55	XTN3+12BFU	Screw	1
56	XTN3+10BFU	Screw	5
57	XTN3+6BFU	Screw	5
58	XTN4+30DFU	Screw	4
59	XXA3D5FU	Screw	2
60	XUC3FY	Circlip	17
61	XUC2FY	Circlip	5
62	XUC4FY	Circlip	3
63	SFXW551D2	Washer	7
64	SFVA910-10	45 r.p.m. Manual Spindle	1
65	SFVS910-17	Manual Spindle	1
66	XWB145BFY	Washer	1
67	SFP-EN9701	Nut	1
68	XTN4+35BFU	Screw	1
	EPC82SMBD	Cartridge-Ceramic	1
	EPS31STSD	Stylus, Diamond	1
69	SFQC411-1	Spring	4
	ERD12TJ100	10 ohm 1/2W Solid	1
	ECQE2A103MZ	0.01mfd Metalized Polyester	1

BLOCK DIAGRAM



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